A study of organisation in a college of education.

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Award date:
1973

Awarding institution:
University of Bath

A STUDY OF ORGANISATION IN A COLLEGE OF EDUCATION

submitted by

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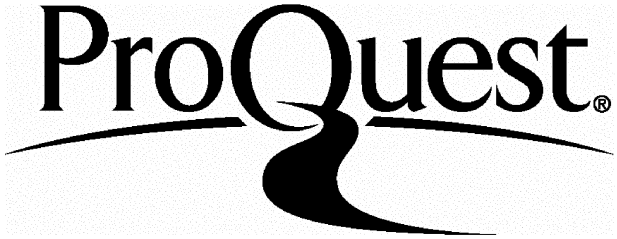
for the degree of Ph.D.
of the University of Bath
1973



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ABSTRACT

This is a study of organisation in a College of Education. From a study of employed professionals in their working environment, an attempt is made to exhibit the diversity of meanings which members of the teaching staff give to the situation in the College; and to relate these meanings to the structural differentiation which has taken place within the organisation, and also to the wider context outside College from which the members derive their values and belief systems as professionals.

Changing cultural values and goals in the College since the foundation are reviewed and its present objectives, performance and organisational characteristics considered. I employ a technique of open participant observation over a period of 3 years. All consenting members of the full-time staff were interviewed and invited to complete an Osgood-type semantic differential instrument. The results were subjected to Factor and Cluster analysis, a technique whereby broad groupings of staff may be identified by multivariate objective characteristics, in the hope that by the use both of statistical-factorial and clinical processual approaches significant groupings could be detected amongst respondents in the light of which processes being observed would be more intelligible.

By a study of negotiation at departmental level and an extended analysis of the nature, conditions and processes of decision making on the College Academic Board

over a period of eight terms, processes are exhibited which operated to maintain requisite integration and enable overall policy to be decided and the enterprise to be organised to pursue common goals.

It is concluded that the management of a requisite working consensus by negotiation is a central task of leadership in such enterprises.

PREFACE

Why a sociologist chooses to do work in one field rather than another is itself in part a sociological question. Social factors in his own personal background - his prior experience of research, contact with certain teachers, generation within the profession, and aspirations - are clearly important. Social factors also bear on the institution under whose auspices the research is carried out - its research interest, willingness to devote funds and tutorial resources to supervision in one area rather than another. Perhaps what are called 'fashions' in research are closely connected with shifts in the relative strengths of such factors, shifts brought about by changing conditions of which previous research on the topic is a significant part but not necessarily the whole story.

I make a point of mentioning this at the outset because the problems surrounding the role of the participant observer are notoriously difficult. And among these problems is that of the observer's motivation. Motives imply sets of priorities, conscious or unconscious, and these, in turn, 'filters' within the mind which cause it selectively to retain some observations as interesting and relevant, and not others. When, in addition, the researcher is a long standing member of the institution he is examining, the difficulty is formidable indeed. An observer who goes to work in a factory, a technical college, a prison or a village has at least a reasonably

impartial frame of mind as a starting point, and can keep a check on his feelings and reactions over the period of the research. This safeguard at any rate has been accepted by sociologists as an adequate gesture of good faith, inasmuch as deliberately cultivating self-awareness is about as much as one can do to minimise unconscious bias. I have tried to remain aware of this problem of selective perception; I can only add that I deliberately invite the reader to be attentive for any grosser forms of it that may appear.

At the conscious level there is the matter of method and techniques. An acceptance of scientific method, humility before the facts, careful distinction between findings and interpretation, major emphasis on techniques which could in principle be replicated: these are common enough. But there is the possibility of being led by too great an emphasis on technique, to avoid profoundly interesting and perhaps crucial areas, because they are not very amenable to strict research design; and so to support with greater and greater rigour propositions of less and less interest. In practice there has to be a balance between individual interpretation and objective, checkable, testing and description. I have tried to keep this balance in mind.

My thanks are due to Mr.G.Hutton for his sustained advice, guidance and encouragement, and to my colleagues at St. Luke's College for their great forbearance.

CHAPTER ONE

THE ORIGIN OF THE RESEARCH

The research out of which this thesis grew began when a group of senior staff in the College felt the need to examine in more detail and monitor more systematically the internal changes which had transformed the College during the period of rapid expansion beginning in the late 'fifties and continuing through most of the 'sixties. What immediately precipitated this feeling was the recognition that an important climacteric event had taken place, though it must be stressed that this was more in the nature of a 'threshold of consciousness' than a sudden flash of insight.

This event was the convergence of three interrelated developments. The first was the end of a period of rapid expansion during which new resources had been forthcoming each year to be shared among the Departments. As things stood in January 1968, the College would cease to expand and would stabilise at a figure of 1200-1250 places for the foreseeable future, in what promised to be a period of financial stringency. After a long period of steady "go" there had arrived a moment of definite "stop".

The second was the delicate question of the allocation and deployment of staff. During the period of expansion large cohorts of extra staff appeared at regular intervals (table 1). This enabled rapid promotion to take place, and departments to grow to the point where the Heads of department

Table 1: Staff recruitment, withdrawals and sabbatical years 1955/6 - 1971/2.

Date	New staff recruited	Withdrawals	Staff granted sabbatical years
1955/6	2	1	0
1956/7	2	0	0
1957/8	0	1	0
1958/9	3	0	0
1959/60	9	1	1
1960/1	1	0	0
1961/2	5	0	0
1962/3	6	1	0
1963/4	12	4	1
1964/5	10	2	1
1965/6	6	0	1
1966/7	5	0	1
1967/8	13	4	2
1968/9	25	4	4
1969/70	9	5	2
1970/1	2	4	2
1971/2	2	4	3

Source: Annual reports of Governing Body

qualified for an allowance in addition to salary. As the light turned from green to yellow, with the immediate prospect of remaining at red for a long time, tensions and conflicts about the allocation of staff and the loadings on individual departments came to the surface and added to the apprehension felt about the end of expansion. As it turned out, one of the first tasks of the newly appointed Academic Board was, in the Principal's words, "to preside over a reduction in staff". (Ac.Bd. 7 April, 1971.)

The third element concerned the decision-making machinery of the College. In the period of expansion the Principal allocated staff and resources in response to complex pressures from lobbying groups, but always with the happy possibility of cheering the unlucky with the prospect of being satisfied out of the next annual distribution. At the moment when it seemed that no further distribution would be forthcoming, the proposals of the Department of Education and Science for the Government of Colleges had matured, and the new Instrument of Government of the College was on the point of being agreed. This instrument stipulated the setting up of an Academic Board, one of whose duties was to advise the Principal and Governing Body on the appointment and promotion of staff; and on the allocation of resources, (staff being one) in the College. Instead of being settled by the fiat of a Principal responsible only to the Governing Body, staff allocation would become a matter for committee decisions; and with it, staff promotions. The decision making machinery was thus changed at a point when decisions

about staff and resources took on a new importance affecting the future of departments, the promotion of individuals and the general morale of the College community.

The effect then of this threefold development was to end a period of well-being not quite amounting to complacency, and to replace it with a feeling of uneasiness not quite amounting to apprehension. Such moments are moments of increased self-awareness in communities as in individuals. In this case the increased self-awareness issued in a wish for a clearer picture of the situation.

The idea of a systematic and on-going study arose in 1968 when it was proposed that a member of staff should be invited to coordinate and check demands for resources and try to evolve a system through which they could be more objectively presented and weighed against one another, particularly in view of the fact that such arguments would soon have to take place in open committee. The eventual Academic Board would certainly include many members who had a direct stake in the outcomes of decisions taken, and also members who had not previously seen their demands against the background of allocation of resources in the College as a whole. Since the Board would be operating in face-to-face, if not indeed eyeball-to-eyeball, conditions - as had not been the case under the lobbying system - it would be helped by the provision of as much factual information and systematic evidence as could reasonably be supplied.

It soon became apparent that there was material for a case study in depth which would look back over the period of

expansion. It should be emphasised, however, that this programme was only a starting point for the present study, which as it proceeded, did not concentrate on the needs expressed by the College at that particular moment, but set off on a course of its own. Although a number of annual surveys were carried out events moved too fast for decisions to be much influenced by the resulting information; the secretariat idea came to nothing. It did, however, help greatly in establishing for the writer a role in the College which enabled him to start the research which will now be reported.

Approach and research strategy

The object of this study is organisation in a large College of Education. The most obvious feature of the College during the last decade has been rapid growth and internal differentiation. Studies of the human factors in such situations are rather rare particularly in non-industrial contexts, though their importance is often stressed. Recent participant-observation studies of schools (Hargreaves 1967, Lacey 1970) have shed some indirect light on the way teachers behave, but it remains true that there are few studies of professionals in action. Comparative studies of Colleges have been attempted (e.g. Taylor 1969, Eason 1971). The number of these and the enquiries stimulated by the activities of the James Committee which reported in 1972, were a hindrance

since staff had a surfeit of visitation, interviews, discussions and questionnaires; and studies of College students regularly appear. However there is nothing comparable with the studies of organisation carried out by consultants in industry. Colleges cannot afford them. Any study would clearly have to be made by a member of the College, for the only finance available would be that which provided the researcher's salary during one sabbatical year; no other kind of sponsoring, and no clerical assistance were available. The survey studies just mentioned in no way compare with the carefully prepared investigation of a sample of firms at present being carried out by Pugh and his associates (1968, 1969a, 1969b) at the London Business School and elsewhere, since the key variables have not been identified on which enterprises providing higher education may be compared in respect of organisation; nor have the sorts of investigations of individual enterprises from which powerful hypotheses may be derived, been carried out.

My methods have been rather pragmatic for this reason I have attempted to gather from the broad fields of management studies, organisation theory, and social science, operationally useful leads, approaches and concepts in the hope of uniting them into a systematic approach to one case. If, as I have suggested, no one theory is adequate I have tried to retain a theoretical perspective rather than to study a management problem as such.

It seemed to me of most value to make an extended case study of one enterprise and I was encouraged by the publication

of studies of individual firms made by Lupton (1959), Wilson (1963) and Cunnison (1966). At its lowest initial level the data presented is descriptive, a natural history of the academic species in a College habitat. The first element in the approach is the limited and specifically British tradition of structural analysis of enterprises, which Professor Lupton calls "structural particularism". Growth and differentiation are essentially structural aspects and the influence of these upon members' behaviour is examined in this study.

The modest aim of structural particularism is to add to existing descriptive studies of behaviour within organisations whilst attempting to rise to the level of analysis in at least some areas of the descriptive data. Exploration and hypothesis formation, rather than hypothesis testing and theory construction are the present points of emphasis.

Structural description involves a study of the enterprise during the period of growth which pays attention to the pattern of differentiation within it, and to the nature of the lecturer's role, taking account of the constraints within which it is performed. Some attempt must be made to show what are the ends towards which activity is directed, and to relate the enterprise to its environment. It is important to examine whether there is a generally agreed set of objectives shared by staff members and consensus about the means appropriate to achieving them. In doing this it is possible to examine, at least in some measure, how the economic (input of resources), technological (methods of

instruction), socio-cultural (values and traditions) and contextual (the teaching profession and other immediate factors in the environment) constraints operate.

These writers previously mentioned approach their task by identifying the stages of a transformation process into which a machine based technology of assembly (electrical machinery, garments, electronic valves) has introduced a rational sequence of operations. Around these operations work-behaviour centres, and they are the important factors in defining social positions in the organisation and in patterning diverse sets of relationships on the shop floor. In contrast, College lecturers work individually; their work behaviour is not open to inspection in the lecture room even by colleagues. Even if this obstacle could be overcome, as it no doubt could be, there is simply too much to be observed, certainly by one investigator. In any case, in educational enterprises like Colleges of Education, professional staff members' roles and behaviour are nowhere near so prescribed and constrained by the transformation process. The discretionary element in the lecturer's role may be very great since he has in most cases a large measure of control over his pattern of work; this may vary considerably according to personal preferences, nature of discipline being taught, balance of work between College and schools, and amount of administrative responsibility, to mention only the chief differentials. Work-structured social relationships are an obvious interest of researchers in industry because they clearly influence directly the

effort (or restriction of effort) of the workpeople, as well as being related to intervening factors such as morale, job satisfaction, etc. In Colleges these are less important than identifying agreed goals, corporate strategies, and coordinating activity in relation to them. Subtly different conceptions of the task held by individuals and groups in the College lead to disagreements and differences of opinion about priorities, emphases, and allocation of scarce resources, about how information should be interpreted, about the importance of different objectives and the efficiency of different means. This calls into existence the 'political system' (Burns 1966) of the College, the major forum of which used to be the Principal's office and is now, publicly at least, the Academic Board.

Rather than attempting to make more intelligible the behaviour of staff by paying attention to the sequence of operations and task-imposed social relationships, I have sought to discover what are the principal forces tending towards differentiation and what are the processes by which requisite integration in the enterprise is achieved. I was much influenced towards this view by the work of Lawrence and Lorsch (1965, 1967), who suggest that structural differentiation is a key determinant of belief and perception systems, and of behavioural attributes within the sub-units of American businesses, quoting Dearborn and Simon's empirical evidence (1958). I suggest that for the College it is not merely the specialised task of the sub-unit, but the academic world and their experience of it, which influences members'

perceptions and frames of reference; though departmental affiliation may selectively reinforce and mould these to some extent as members are socialised to the institution.

I was also influenced in my approach by the attention which recent writers on organisation had paid to the existence of competing value systems within the enterprise. The somewhat pejorative phrase "monotechnic" currently used to describe Colleges of Education might suggest that there would be considerable congruence of objectives amongst the academic staff, and that in contrast, say, with a Technical College, there would be a high degree of normative commitment (Etzioni, 1961) amongst them which would also contribute to the functional unity of the enterprise. It is true that the grosser forms of overt conflict are absent; but to lay stress on a restricted set of objectives and a narrow range of cultural values and belief systems, of social and professional standards, would lead dangerously close to the falsely unitary view of educational enterprises that F.W.Taylor (1911) took of industrial undertakings. This would in turn lead to many of the behaviours of which I shall write being defined as unimportant frictional aspects due to personality factors, merely the petty disagreements of academic communities, and not as significant processual activities within the organisation. Similarly, in such a Taylorist perspective, what goes on at meetings would be regarded primarily as coordination of activity arising from the complexity of operations, not as implying different views of what "the

rules of the game" are or ought to be. The discussion of major strategic policy would be seen as the objective analysis of alternatives rather than as the outcome of competing systems of belief about ends.

Only slowly, with greater sociological and psychological sophistication, was an advance made from the unitary viewpoint. Subsequent theories during the "human relations" period continued to retain ideas of functional harmony and wholeness, though less obviously. A still relatively simple model of partially opposed formal and informal structures of relationships and associated behaviours was put forward to describe the organisation. Attention was focussed upon management-worker relationships within the four walls of the factory; external and environmental influences were largely neglected. The informal structures and behaviours were frequently viewed as irrational and frustrating to rational management policies; explanations of them in terms of the wider social context outside the firm were not pursued. Still more recently interest in the formal/informal dichotomy declined; instead there appeared typologies of bureaucratic forms, behavioural theories of the firm and systems theories, all of which were much more aware of norms, roles, beliefs, expectations and values brought in by the members from the world outside the enterprise. The striking contribution of Lupton and his associates at Manchester has been precisely that of analysing the interaction of external and internal factors influencing shop floor behaviour amongst operatives, and

relationships amongst them.

In the light of subsequent theoretical developments a serious failing of the unitary view of the enterprise was its tendency to regard the social reality as a non-problematic "given". The naive psychology on which Taylorism was based, with its view of workpeople as rather special machines to be paced and programmed by rational management, gave way to one which saw them as adapters to a system, firmly gripped in the technology-imposed structure in the interstices of which, as it were, their humanity emerged as informal behaviours. The theoretical advance of more recent writers has been to abandon the assumption of a central value-system and to acknowledge that individuals and groups have different goals, define the situation differently in respect of means and conditions, and pursue different tactics and strategies; they acknowledge different norms deriving from historical situations, present interactions within the organisation,and from socialisation and life-experience outside it. Accordingly, analysis should concern itself with a dynamic process of interaction, the purposes of the actors, and the meanings they give to the situation. How do the participants differentially construct the reality they percieve as real and constraining? What factors enter into the social construction of reality? What groups share meanings and to what extent? If action arises from meaning structures, how do different meanings lead to different actions? How are strains arising from different values, systems of expectations, "sub-universes

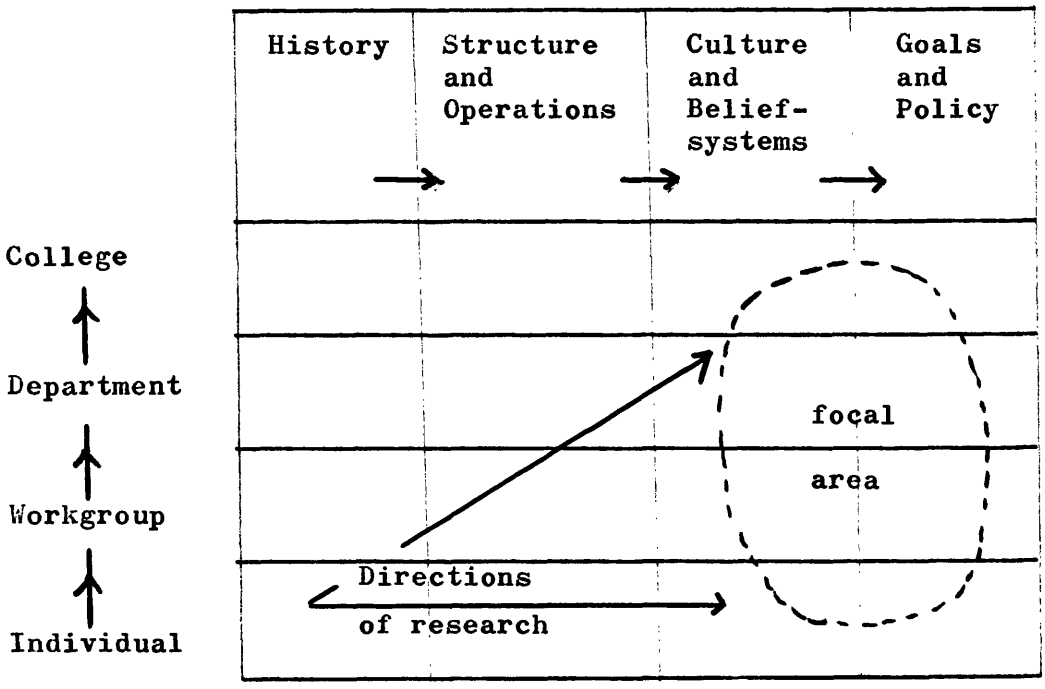
of meaning" (Silverman 1971) accommodated? When, about what, amongst whom, by what processes, in what situations, are attempts made to achieve a requisite working consensus?

Following Simon (1964) I view the College as performing a number of functions within a set of constraints. Among these constraints are staff belief systems about what should be done, alongside, for example, administrative constraints such as costs. These two come together in the area of allocative decisions. Further, the constraints (skills, money, facilities, cultural norms, etc.) permit a set of feasible behaviours one of which is selected according to some value criterion as the goal. The criterion function, or in the language of another group, the 'primary task', is to some extent an arbitrary decision, the outcome of competing values, meanings, definitions of the situation. It is in the area of strategic decision. Simon's mathematical approach implies that all the major elements in the situation can be specified and ranked; he used the illustration of diet where the calorific value and cost of different foods are easily known. In the case of a complex educational enterprise it is not easy to identify and specify all the elements in the situation, so that I have grave doubts about the reality of his mathematical calculus; but his general point that once one member of the set is designated as the goal all the rest become constraints is not weakened. The limitations on choice imposed by resources, other than money, are not so great, with the result that in the strategic

area, (the choice of a criterion function) room for political manoeuvre is considerable. To illustrate this with an example that will figure prominently in this study, for one group the criterion function is to provide a liberal academic education within the constraints of preparing students for their professional work as teachers whilst for another group it is to prepare students for their work as teachers within the constraints of ensuring that they receive a liberal academic education. What, therefore, is of importance is not any supposed 'objective' situation but the psychological emphasis that the members, as actors, put differentially on the elements in play at any given time. I must emphasise, nevertheless that my first concern is with the whole organisation not with the relationship of the individual member to it.

The core of the research, then, is the attempt, first, to exhibit the diversity of meanings which members give to the situation in College, relating these meanings to the structural differentiation which has taken place within it and also to the wider context outside College from which members derive their values and belief systems as professionals; and, second, to show how processes operate to maintain requisite integration and enable overall policy to be decided and the enterprise to be organised to pursue common goals. The following diagram (fig.1) gives an indication of the research strategy.

Fig.1 The research strategy



Tyler (1955), who has conducted one of the few really thorough studies which attempt to link the teaching processes of an institution of higher education with its observed tasks, at the United States Air University, has pointed out that the objects of such institutions are not set in relation to empirical studies of the work their leavers actually do. Detailed job-analyses of what teachers actually do, of their common duties, critical tasks, chief difficulties, of patterns of behaviour related to unsatisfactory performance, and so on, have never been publicised in Great Britain, if, indeed, they exist at all. It seems instead that Colleges function as normative institutions. This is, their

objectives and the behaviour intended to lead towards them are generally regarded as being governed by a common set of values shared by the participants which act as imperatives in directing the course of operations. These are a loose cluster of moral, professional, academic and social values, which are recognised as constituting a central concern of the philosophy of education, and typically include such matters as commitment to the individual welfare of pupils, avoidance of indoctrination, concern for academic standards, and the acceptance of professional responsibility in the teaching situation. It is a common form of criticism for students to draw attention to what they perceive as discrepancies between these culturally and professionally approved values and the teaching and organisational behaviours they encounter in College, which are supposed to embody or at least reflect them.

A plausible account of what actually happens has been given by Harris (1969, p.167), writing about the Church (another normative organisation). He points out that even where strong normative values to which all members assent might seem to control behaviour and create a consensus about aims and priorities, the facts are that differently placed members of a complex organisation see things differently. In a College, for example, the administrators may be interested in least cost procedures, the educationists in maximising students' experience, and the subject teachers in providing the best higher academic education possible. By the first, teaching practice is seen as a

cost, by the second as a highly valued opportunity, and by the third as a break in the continuity of teaching.

A university School of Management might similarly expect to be subject to pulls from different sub-environments, one requiring it to respond as a consultancy service to industry, another as a research centre, a third as a graduate school, and a fourth as a place where undergraduates receive professional education. These would be reflected in the processes leading up to decisions. Responses would be reflected in changes of the "mix" of in-puts (staff, ideas, projects for investigations, different levels of students), and out-puts (advice, reports, publications different levels of qualified leavers).

With this in mind I begin with a historical introduction in which I trace the development from a small College responding to its environment as a total unit, to a large and differentiated College responding to specific sub-environments. In this development, the College seems to have followed a course similar to that detected by Bidwell and Vreeland (1963) in their study of denominational Colleges in the U.S.A., that is, from a communally orientated institution with very strong doctrinal and moral aims to an associational institution with a much more marked technical and instrumental set of aims and a neutral administration.

I examine the cultural values and goals of the College since it foundation in the nineteenth century paying attention to its historical pattern of response to the environment. In this way I seek to indicate some of the

principal symbolic and normative constraints within which the College has had to exist as an operating system. These are embodied in the very buildings, the constitution of the Governing Body, the traditions, habits of thought and memories of the senior staff. In as much as older expectations have been institutionalised in the College as norms, values, success criteria and the like, they confront the new member of staff on recruitment; and for all staff they are influential in defining goals, which are culturally elaborated objects with a history, by which individuals make their actions accountable to themselves and to one another. At different times, religious, academic and professional goals have appeared as dominant. The power of the College to impose definitions of reality on its members has been greatly reduced by growth and differentiation; but any attempt to state the mission of the organisation leans heavily on the past traditions which are used both to legitimise adaptive developments and to assert the essential continuity of its organisational life.

I turn next to some aspects of its present objectives and performance during the recent period of rapid growth in order to exhibit some principal economic and physical constraints, the College's general organisational characteristics, and the problems involved in the conceptualising what goes on in such an enterprise. Life a factory the College is, in Lupton's phrase, "a system of structured activities, complexly related, and in a complex environment." (Lupton 1968). It is unlikely to be possible in principle,

and certainly is not in practice, to take account of all the major variables in this complexity. This is particularly true of the human variables, on which the basic technology depends, since no really adequate methods are available of quantifying human behaviour in complex social situations. The practical method seemed to be to stand well back from this complexity in order to pick out the main characteristics of the College as an operating system for converting inputs into outputs.

In enterprises where things are done to and for people there is often no consensus about what the object to be produced shall be, as there is, generally speaking, in a factory; and the much studied problem of restriction of output in industry is simplicity itself beside the restrictions, resistances and distortions of purpose and effort in prisons, mental hospitals, schools and the like.

Following a distinction made by Katz and Kahn (1968) who note that "the organisation as a system has an output, a product or an outcome, but this is not necessarily identical with the individual purposes of group members", I consider the operating characteristics of the College but without becoming enmeshed in discussions of alternative aims and purposes which are a regular feature of educational writing about individual institutions. The importance of this lies in the fact that tasks and outcomes can not be directly deduced from aims; indeed there is usually a conspicuous disparity between what is actually going on and the expressed aims of an educational enterprise. Furthermore,

tasks and outcomes are not visibly related to a technology and machinery as they are in a factory. "The reciprocal role relation between teacher and student is..... the central technology of education", (Bidwell and Vreeland 1963, p.173) that is to say, it is governed by socio-psychological laws which are far less exact than those of engineering. Finally, as Gross (1969, p.277) has shown, in educational enterprises many of the large number of aims he has identified are related to maintenance and integration, and thus only indirectly to outputs.

It will be recognised that technological, market, social and other changes which make themselves quickly felt in industrial concerns are much slower to affect eductional enterprises, which can hold out against adaptation and innovation for a long time, (though not, perhaps, as long as prisons). Precise information, also, is a very scarce resource. The nature and extent of change is thus much less constrained; indeed it is nearer to a voluntary decision on the part of the staff, taken in conditions of considerable freedom (except economic) and leisure. The question of implementation and evaluation of change is thus a delicate one. It often depends on consent in a not very authoritarian set-up, where producers rather than consumers have the power, and where cost-effectiveness can be headed off by appeals to cultural values. What is involved, in short, in getting changes made, is not so much the technological aspects as the whole political system of the organisation.

Since the staff had not shown enthusiasm for research instruments circulated by outside enquirers I thought it best to approach this latter area cautiously. I established my research role by working in the neutral areas of history and performance, circulating and publishing working papers and encouraging members of staff to become familiar with the project by approaching them informally for data; and also by attending important College committees as an observer or member. After several months of preparatory work of this kind I felt able to begin interviews with a junior cohort of staff using a preliminary schedule (Appendix A).

The principal objectives of this first series of interviews were:

(a) to get a more detailed understanding of what was involved in changing from school teaching to College lecturing by asking about motives, alternative job opportunities, perceptions about lecturers as a social group and occupational category, and by asking about the respondents' prior knowledge and expectations of the job and their initial perceptions of it.

(b) to test the view that there might be different frames of reference amongst this recruitment group, in particular one which was broadly 'academic' and one which was broadly 'practitioner'; and to explore this concept.

(c) to use the results of these interviews as material from which to extract significant areas of concern

which might be used in interviews with the more senior staff.

I should add, too, that if anything went wrong with the research procedures, so that the interviews were not very successful, the loss of information would be least if I began with this group. In the event, the first set of interviews went well.

The main staff group were interviewed in the following year with a fuller schedule revised in the light of experience gained during the pilot interviews. (Appendix B) But in order to discriminate more clearly amongst the beliefs and perceptions of this senior group they were asked at the same time to complete an Osgood-type Semantic Differential instrument which would provide precise numerical data on topics parallel to those raised during the interview. It was hoped that the interviews would provide richness of responses, since sophisticated respondents are more likely to disclose information relating to their inner feelings, perceptions and beliefs if they can approach the reply in their own way. But only extreme cases can be so identified; the middle ground is obscured by the difficulty of coding responses which are elaborated and include many provisos and reservations. The Semantic Differential instrument does not resemble any common standardised test; it is not laborious nor technical. It taps a wide field of judgements on not necessarily homogeneous topics and takes only a few minutes to complete. It has been extensively used by Osgood and his collaborators

(1957) and a full review of the technique is available in Warr and Knapper (1968). The results were subjected to Cluster analysis in order to determine the pattern of grouping amongst the respondents.[1]

By systematically sampling perceptions, attitudes, and values revealed by the main staff group this factorial study attempted to provide an empirical account of the chief features of their belief system, and the extent to which beliefs which are significant for their behaviour as members of the enterprise are shared. But, of course, whatever the initial belief system of a member at the time of his recruitment, it must inevitably be accommodated to the fact that the College has a long history, an established culture and special tasks to perform. In other words, whatever the prior mental states of the actor role expectations related to a particular position in the enterprise confront him. How much strain arises from the need for accommodation is partly a matter of the degree of initial congruity of these expectations and those of the enterprise, partly a matter of personality which can only be guessed at, partly a matter of the size of the recruits department, its rate of growth and staff turnover and such related factors as may or may not provide elbow room for a lecturer to modify his work-areas or the nature of his professional contribution.

In my state of knowledge as it then was, I did not find it easy to frame questions for the main staff interview

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[1] All the computing in connection with this study was performed by courtesy of the Computer Unit of the University of Exeter, to whose Director and staff I should like here to express my gratitude.

schedule which would throw light on these matters. No strident conflicts had been observed which would divide the staff into factions, nor were tidy groupings on simple explicit criteria to be expected. The initial group of interviews suggested that the academic-practitioner continuum was the most likely, but I did not dismiss the possibility of some convergence to a "common College belief-system" as a result of longer job-socialisation. I also had in mind the "shifting coalitions" type of explanation of decision-making put forward by Cyert and March (1963). I hoped that by using both a statistical-factorial and clinical-processual approach I would be able to detect significant groupings amongst respondents, and gain some insight into the issues separating them, in the hope that this would make the processes being observed on the Academic Board more intelligible.

After asking for personal details, I first raised a number of general questions and then invited respondents to discuss their particular tasks and set of work relationships, changes which had taken place in their disciplines, and the structure and organisation of their departments. I raised the matter of growth and tried to get an account of the organisational consequences it had entailed, as well as views about how these developments had affected respondents. I discussed differentiation within and among departments, the effects of this on preferred work areas, on choices available, operating procedures and how decisions were taken in departments. It

was convenient to start with a number of educationists, but the interviews were held in no particular order, and were spread over a year whilst I was working normally in the College. Since the areas were more delicate I conducted the interviews in my room or that of the respondent, and did not make tape-recordings. Most lasted longer than an hour, some much longer. Much of the information from these interviews was of value in the interpretation of the clusters based on the Osgood-type instrument. In addition they threw further light on the consequences of differentiation, particularly the effect of different "knowledge-technologies" in the College, and enabled me to move from the individual to the work-group or departmental level of analysis. Because of the number of departments organisation at this level is the most difficult to observe and investigate, so that the results are largely descriptive. However one group decision could be studied in some detail and is included as an example.

Group interviews with ten groups of students spread over the four year-groups and amounting to almost a 5% chance sample of the student body were also conducted (Appendix D). The way in which College organisation affects students varies enormously according to their age, sex, departmental affiliation, length of course, intended career pattern, mode of envolvement and so on. No clear pattern of responses could be detected from the transcripts of the recordings, except in highly predictable areas such as the effect on students work-loads of poor coordination amongst departments.

On this showing College organisation was not a salient issue to students. Their responses are therefore not reported in detail.

Since 1965 developments had been taking place in the College which culminated in the establishment of the Academic Board in 1969. This meant that more and more decision-making at College level was taking place in public. After 1969 it became possible to analyse systematically the working of the Board. Ruled foolscap sheets were used to record observations with a broad margin which acted as a scale, being marked off in five-minute divisions, one ruled line for each minute of proceedings. In the margin each intervention by a speaker was noted by his initials, whilst the nature of the business was noted in the body of the sheet. This meant that the pattern of discussion could be followed in fair detail, and the clusterings of initials would show who participated and very approximately for how long. After each meeting I summarised the proceedings, classified the business and counted the interventions. I hoped that in this way a broad pattern of decision making would become clear over the period of the investigation, and that some of the contributory mechanisms forming the political system of the College would be uncovered. Analysis was continued in this way for eight terms, until Easter 1972 when the Principal was on the point of retirement and serious business was held over until the arrival of his successor. This completed the collection of data for the total project, and the empirical element in the research terminated.

CHAPTER TWO

In this chapter I seek to show how the College has responded, first in a unitary way and later by internal differentiation, to new tasks and opportunities presented to it by the evolving educational system of which it is a part. I go on to describe some of its major operating characteristics and aspects of its recent performance. In thus presenting the College in a wider setting I stress that it is a major strategic objective of the College, a fundamental requirement for survival, that it should adapt successfully to changing conditions. But previous adaptations have led to growth and a change from a relatively simple to a complex and differentiated organisation; at the same time consideration of recent performance shows that adaptation is almost a continuous process. Stategic policy must always be kept in view. These considerations are natural preliminaries to later chapters in which I try to throw some light on the way processes operate within the College to produce a requisite integration of interests and belief systems on the basis of which strategic policy can be evolved.

St. Luke's has some claim to be the oldest College in the country. Despite severe damage by bombing during the war, the main buildings have been faithfully restored

to their original style so that the site and the physical aspect of the College indicate a venerable tradition. The College does not look to the L.E.A., but rather to the University, the Cathedral, the local clergy, prominent local families and its own direct links with schools, which extend back into the last century. Although ritual and ceremony has been much reduced as a result of rapid growth and the change to a predominantly non-residential pattern, these traditional linkages and the values which cluster around them continue. The constitution of the Governing Body still reflects them. The College's former conceptions of its task and goals still significantly influence its present culture, and it is upon these that I concentrate.

I shall try to show what were the major historical phases of adaptation in St. Luke's College, since its foundation, and later turn to a review of the contemporary situation.

During the earliest part of its history the major sub-environment to which the College sought to adapt was the religious one. Most organisations come into being to meet a need or to take advantage of a direct opportunity. In the fourth decade of the nineteenth century the need for trained teachers in church schools was obvious. There is no evidence that any other objective presented itself to the founders of the College, who were the local anglican establishment, than that of getting a working enterprise off the ground to meet these urgent and specific requirements. Unlike the older Grammar Schools and Universities, the

College had no traditional phase, but was deliberately set up, rather like the new public schools of the time, to socialise students to a given pattern of values and beliefs. According to the Report of the Governing Body in 1840, it existed

> "to train students primarily as men and as Christians and secondarily as schoolmasters".

The first purpose of the Exeter Diocesan Board of Education, the founding body, was to coordinate and promote education "on right principles" i.e. Church of England principles, in the local parochial schools, and then

> "to take steps towards the extension of education on Church principles amongst the middle classes".

The Church felt that its hold was threatened by Nonconformity, apathy, and the instrumental attitude to education of the middle classes; the Board saw that its best hopes lay in running a Training College "of the right sort" to supply teachers of unquestioned doctrinal orthodoxy,

> "men of general knowledge, but above all of sound moral and religious principles".

The problem which faced the first Principal, was, in his own words,

> "How to supply a system of education for schoolmasters on the basis of the Church, differing in some points from the old grammar school system, yet not opposed to it, and greatly superior to the old method of parochial education."

Bidwell and Vreeland point out that all socialisation has both a technical and a moral element, a skills component and a value component. High prestige education at the

time the College opened was at pains to stress the expressive element of moral training and character building, achieved usually through study of classics and participation in sporting life. Any technical or instrumental component in this education, if it came at all, came later, during working life. The College similarly stressed the expressive and moral before the instrumental and technical; it shared the view put to the Cross Commission by the Principal of Battersea College (Cross Commission, p.448),

> "You cannot train them as schoolmasters until you have first educated them as men."

Yet the attainments of the students, who were mostly sponsored parish-school leavers, were such that they needed instruction in grammar, reading, writing and arithmetic. Classics were out of the question, even though Derwent Coleridge, the first Principal of the College of St. Mark and St. John, wrote that where Latin failed he had found nothing else to answer.

The solution adopted was to make Anglican doctrine the care of the curriculum, supplemented by strict allocation of time, close supervision, and a heavy emphasis on devotional worship - four compulsory services every day! The early Diocesan Reports were clearly directed at a narrow target population of local Anglican clergy and better-off families who had supported the founders, continued as subscribers, employed the trained leavers, and provided the personnel of the Governing Body. For their

benefit the Principal stressed that the College aimed to induce "outward and respectable conformity to prescribed values", "humility, regulated temper, contentment in his station, above all Christian responsibility". The students could be recommended to Vicar and Squire as docile and uncomplaining on his or her £30 or £40 a year,

> "conducting the school entirely to the satisfaction of the clergyman".

The initial adaptation of the College was thus to the social ideology and clerical preconceptions of the founding group and their supporters. The Instrument of Government provided that the Committee of Management in which the direction, control and government of the College was vested, should consist of the Dean, Archdeacon and Canons Residentiary of the Cathedral, and fifteen laymen and fifteen clergy, all donors of not less than £20 or annual subscribers. It seems reasonable to suppose that the College was therefore nothing more than a pocket organisation of the Diocesan Board, who controlled all decisions with considerable thoroughness.

But national bodies were taking an interest in teacher training. The first step away from the completely religious orientation was taken in 1847 when the National Society began a general examination leading to a Diploma, and the grant of per Capita funds to Colleges entering candidates. Although this, of course, was an Anglican society, once the College began to draw funds from outside the Diocesan group a fundamentally changed adaptation

began. From this point a new theme appears in the Annual Reports which slowly displaced religious sentiments. It was the theme of grant earnings. The College was a heavy financial burden on the subscribers; money from other sources was very welcome. But to earn it meant changing the priorities within the College in the direction of more academic and professional study. Once begun, this process could not be stopped; and though the committee of the Diocesan Board continued to govern the College, another payer had begun to call the tune. When the provisions of the 1846 Minute of the Committee of the Council were extended to the Diocesan Colleges, enabling public money to be earned for the institution by students who gained certificates of merit on examination by H.M.I.s, a considerable acceleration of change took place.

In the first year this system operated (1853) the College received £330 or almost 25% of its annual outlay of £1,359. In 1855 public money provided £870 or more than 45% of the outlay of £1,831. Far less dependent now on the subscribers and their ideology the College could adapt to national requirements, send its products all over the country, and turn from a predominantly religious emphasis towards the encouragement of higher academic standards and participation in a nationwide school system. A new target audience for the Diocesan Reports appears: the visiting H.M.I.s, Whitehall,and those whose interest in education transcended church and local concerns.

The College next turned with enthusiasm to the task of

raising its standards sufficiently to attract Queens' Scholars, the big money spinners of the day. In these years the religious content of the curriculum was reduced and reformed. Subjects such as astronomy, natural philosophy and mechanics were brought in, a practising school was set up and a Normal Master appointed to take charge of it. By the 'sixties righteousness and Christian responsibility, whilst still noticed in the Reports, had become secondary to proud mention of the College's success in earning public money. The provisions of the 1870 Act caused the Lords of the Council to withdraw any official connextion with religious instruction in Colleges, so that religious topics had to be omitted from the syllabus of examination, on the results of which the College received grants. The Diocesan Board "deeply regretted the step". They met the problem by refusing admission to any student who could not pass an entrance test in religious knowledge, and also by making the religious examination internal.

> "No student who did not satisfy the Archbishop's examiner could receive the parchment testimonial on exit."
> (Report, 1872)

But they continued to seek grants.

The next major problem arose over the McKenna regulations of 1907 which provided that Nonconformists should enter Church Colleges. This raised loud protest, and the National Society obtained Council's opinion that Nonconformists could not be admitted without violation of the trust deeds. This controversy led to the setting

up of the body which eventually became the Central Council of Church Colleges. A compromise was reached whereby the regulations were temporarily withdrawn; Nonconformists were admitted but living in a separate hostel off the College site. This again began a process that could never be stopped. For each year until 1914 protests appeared in the Reports about the entry of Nonconformists and the regulations, which also affected the compulsory teaching of doctrinal religious instruction. But the Church now provided only £750 of the annual current outlay of £14,200, and the protests have a rather resigned and ritual note. By 1929 the Board admitted that "No College authority can force these things on students in training", and by 1933 the Council of the Church Colleges complained that it was discouraged by the criticism it received even from within the Church.

Turning now to the academic response, we have seen that by the 'sixties the College was well advanced in the change from making its major adaptation to the religious sub-environment to that of the academic sub-environment. The alternative was to remain small and poor. It did not have the option of becoming, like independent schools, self supporting by fees, since the career of schoolmaster did not attract the classes rich enough to pay them. It chose the course, from which it has never since deviated,

of seeking growth. The only way to achieve it was to tap public funds. The interest of the Government was in raising academic standards. Since relatively few teachers were trained - the majority were apprenticed - those who had residential training had to be markedly superior as a result. The old candidates from the parochial schools disappeared and were replaced by Queens' scholars supported by Government grants; 1869, 17 Queens' scholars; 1870, 32; 1880, 61; 1904, 100. Apart from these only a few private and National Society supported scholars appear in the lists. English composition replaced reading and penmanship; Geography and History replaced mapping; Euclid, algebra, logarithms and physical science appeared. Public money produced 34% of costs in 1863, 68% in 1864, and in the 'seventies, 75%.

In 1902 Training Colleges were finally regarded as part of Higher, not Elementary, education, and a full secondary education as an entry requirement began to be demanded. The Principal now began to remind entrants that Oxford and Cambridge local examination results were an alternative qualification alongside the pupil-teacher, Queens' scholar route. Indeed they were preferable if the student intended to stay on for the third year that was now allowable; the pupil-teachers, he wrote, were too poorly prepared on entry to benefit from a third year.

In 1896 the Government regulations had allowed Training College students for the first time to take University examination. This was to become the main function of the

third year course after the 1914-18 war; it is clear that from before the turn of the century this level of achievement had become the new aspiration of the College. The returning soldiers showed considerable interest in outside qualifications, and by the end of the 'twenties the majority of the students were expected to read for Inter B.A. or B.Sc. Suitable staff members were engaged to prepare them in science and Latin, and also interestingly, in Economics for which there was no Latin qualification. By the outbreak of war in 1939 a considerable majority of the students took the Intermediate degree examination, and the most successful stayed on to complete their degree. But there is abundant evidence that those who left completed their degrees in substantial numbers.

When the College reopened in 1945 degree work was not permitted by the Government regulations of the period which were designed to meet the huge need for teachers as quickly as possible. Degree work was not reintroduced until 1966; but the College retained its heavily academic and secondary orientation.

It is clear that although the Governing Body retained its traditional clerical preponderance until the nineteen-sixties, it began to lose the power to make strategic decisions as soon as it began to accept public money. It was the duty of the H.M.I.s to see that the public got value for money, but their recommendations also helped the College to maintain pressure on the Church for more buildings and better equipment. There can be little doubt

that the personal relationships inevitable between the Principal and the H.M.I.s, both of whom shared a professional concern, would create a partnership against which the Governing Body would in the long run be largely powerless. When a serious issue arose, as it did in the religious sphere, the Governors could make face-saving manoeuvres like relegating the Nonconformists to a hostel beyond the pale. But their pwoer of initiative was steadily curtailed. With the coming of the Academic Board the reconstituted Governing Body has delegated substantial powers; hut as a result of the reconstruction its membership was greatly strengthened.

As regards the response to the professional sub-environment, the resolutions of 1902 admitting them to Higher Education notwithstanding, the major difficulty of the English Training Colleges stemmed from their association with the Elementary Schools through the pupil-teacher and Queen's Scholar method of recruitment. Although progressives as early as David Stowe had held that the professional aspect was as important as the academic, the dominance of religious and moral preoccupations during the initial period had left little time or recognition for training in the art and craft of teaching. Right moral thinking had a far higher priority than right teaching technique. Later, because Elementary school teaching did not attract many who had enjoyed a full secondary education, for which opportunities were in any case very limited, the object of government policy was to make the Elementary Schools

provide their own teachers. This simply meant, as Rich (1933, p.22) wrote that the Colleges were

> "turned aside to do work properly belonging to an institution of another type"

namely to give a thorough secondary education rather than a professional formation. There is ample evidence in the literature on organisations to show that such "means" activities rapidly became ends in themselves, and primary goals of the institution. The Principal was always a clergyman, half the staff were graduates of the ancient universities, and the others either graduates or visiting specialists in music, French or drawing. The training of the students was thus in the hands of scholarly men of university background, whose contact with elementary schools was very limited and formal. The Practising School, though on the site, was a separate institution. The lecturers held a life appointment, were usually appointed young, and the turn-over of staff was very low. It is natural in these circumstances that the academic objectives of secondary and later external degree level education, rather than professional training should be seen as determining the primary task of the College.

The National Society's Diploma led to the first major reference to professional training in the Reports of the Exeter Diocesan Board.

> "It cannot be maintained for a moment that a schoolmaster should learn only what he has to teach; a schoolmaster is not a mere machine through which

> information must be conveyed for the benefit of the young, but he is himself the source of instruction to his pupils, the judge of its measure and quality, and of the degree of their capacity to receive it."
>
> (1847 Report)

In the last two phrases are the germ of a professional tradition. It is true that from this time onwards many of the students had some experience of the teaching situation since they had been pupil teachers, and this may have encouraged the College to pay little attention to the practical aspects of instruction. But as early as 1835 there had appeared perhaps the first suggestion in an official publication which pointed the way clearly to the eventual growth of Education Departments in Colleges, when a witness before the Select Committee on Education had drawn attention to the fact that teachers needed to be grounded

> "in the principles from which methods and technique might be evolved".
>
> (Bryce 1834, para.1036)

In 1847 the Minutes of the Committee of the Privy Council show that they too had a concern for the professional aspect.

> "If we sent forth the teacher to the discharge of his lowly but momentous duties with in most cases only a moderate range of attainment, let us provide that he may have acquired such a readyness on all that concerns the art of teaching as will render his knowledge at once available."
>
> (Minutes 1847-48, p.587)

They did nothing to implement their wish. In 1836 the "study of the practice and art of teaching" figured in the College curriculum. In the following year an H.M.I.

watched the Normal Master (head of the practising School) give a lesson on Plato(!) and lessons by other lecturers; he remarks,

> "I did not notice at any of these lectures any reference to the method of teaching or the special object of a Training College".

During the 1860-1900 period when the College entered for Queen's Scholars the average entrant was the 800th on the national list, for they did not include many of those favoured pupil teachers who in urban centres could take advantage of the Central Classes to advance their education. The curriculum had to be an extension of the Elementary curriculum, and in Dover Wilson's words "narrow, illiberal, and inadequate". But by the turn of the century the denominational colleges were beginning to feel the competition of the new Day Colleges, which, being founded adjacent to Universities were closer to the latter's attitude of teaching Education as a subject in its own right. Day Colleges were able to recruit a better level of staff, admit from a wider range of students since they were inter-denominational, and could provide teaching practice over a wide area. The College responded by developing a professional side of two graduate Normal Masters.

After the war the Burnham Committee Report of 1925, noting that schools were now providing a secondary education, entertained the suggestion that only a short professional course of one year was needed for Elementary School teaching. But the two-year course survived on the

grounds that more time would be devoted to professional work, be available for personal development, and particularly the development of a sense of vocation.

> "The subjects", they wrote, "should be looked at as material for studying teaching method and for acquiring ability to teach them in school."

The concept of colleges as part of the system of Higher Education was not pursued at all. The College, we have seen, took a different view and concentrated on advanced academic work. In this the central issue of the post 1945 era was foreshadowed: the tension between the long term aim of gaining recognition as genuine institutions of Higher Education not mere teaching factories, and the short term aim of servicing the profession with appropriately trained and educated teachers. The tension is central to the concerns of the Robbins Report and the working of the Binary system. There can be little doubt that up to the present the long term aims could best be served, from the point of view of the College as an organisation, by securing an ever-growing reputation for academic standards as these standards are perceived in University circles. To the pursuit of this aim uninterrupted teaching terms and singleness of purpose on the part of the students is highly important; curriculum and professional studies together with teaching practice, which interferes with the smooth running of lecture courses, are an obvious hindrance. The resulting development has been along the path of making the professional study centre on an amalgam of academic studies in psychology, sociology, history and philosophy

of education combined with the use of the middle year of the course for a form of field work in child study and teaching methods called study-practice.

The College reopened in 1945. In a seller's market for teachers, there was nothing to fear from the counter-vailing power of the consumer. Growth continued to be the latent objective, and with it growth in reputation which would enable the College to retain its position as a "first-choice" institution. There was first a twelve year period of steady growth and consolidation after McNair, then, from 1957 accelerated growth in preparation for the three-year course, and finally, a period of explosive growth in the Robbins era which ended when financial stringency began to be felt in 1969. The growth was very skilfully managed, but it inevitably led to differentiation, from size alone. It also involved some differential responses by separate parts of the institution to different sub-environments, instead of the former College-wide unitary response.

First the religious response. The College reopened under a newly appointed non-clerical Principal. The Church continued to pay a decreasing share of the capital costs of post war expansion. The Governing Body continued as stipulated in the foundation deed until 1965 when a new Instrument of Government was approved which provided for wider lay and academic representation.

The office of Chaplain was separated from the appoint-ment of Head of the Department for Religious Education. The R.E. Department responded differentially to the

particular sub-environment represented by contemporary theology and religious sociology, the modern movements within the Church and the growing controversies surrounding religious education in schools; three developments which interpenetrate each other. With a leading figure in the field of religious education in schools in charge, the Department recruited staff with special qualifications in these areas and developed a course recognisably in the spirit of the course in Religious Studies of some newer Universities rather than the old theology courses. The religious life of the College became more characterised by the vigorous life of this department and the large number of students attending its voluntary courses, than by formal worship. Considering the past traditions of the College which had been sustained by a distinctly orthodox, cbistered, even inward-looking way of thinking, the remarkable openness of the R.E. Department to new intellectual and theological currents and rapid developments in religious outlooks in respect both of doctrine and the presentation of religious ideas in schools, represents a major differential adaptation in the College.

Similar differentiations appeared in the Subject teaching areas. The new post-war atmosphere was created by the McNair Report and the 1944 Act which together set in motion a major reorganisation of teacher training by linking the Colleges more closely with the Universities. At the same time there was a crash programme to meet the unparalleled needs of the situation of teacher shortage as it then stood.

Even before awareness of the "bulge" had developed the estimate of trained teachers needed was fifty to ninety thousand compared with a total pre-war teaching force of 200,000, some of whom were untrained. The Colleges thus embarked upon changes that were destined to be permanent rather than merely post-war temporary expedients. In the case of St. Luke's College the effect was that the old pre-war pattern of preparation for external degrees was abandoned completely. The new objective was growth and the achievement of a national reputation. During the sixteen years from 1946 to the first three-year course in 1962 the College expanded from 223 to 600 places. It carried through a building programme that made it one of the largest of the Voluntary Colleges. This growth and its inherited secondary orientation, created conditions for more specialised teacher preparation. Thus in the 'fifties when the shortage of mathematics teachers and changes in the syllabus led to the School Mathematics Project and the Nuffield Mathematics Scheme, a maths lobby on a national scale was generated sufficient to constitute a special sub-environment. The Mathematics Department in College responded to this new sub-environment by introducing newly designed courses, Certificate and Diploma third-year courses, in-service courses, considerable activity in schools, steady expansion of personnel into the new fields, and several publications.

Similar developments, supported by outside movements were taking place in Science and P.E. Towards the end of the 'fifties the Ministry encouraged large general

colleges to formalise their specialist elements into "wings", so bringing them in alongside the specialist colleges whose standards were an external yardstick because of their pre-war existence. Third year courses had been instituted also in these fields and were extended. Once set in motion the process of growth in size, extension of advanced work, and increase in reputation tend to be mutually reinforcing. More students name the College as "first choice", and if the number of first choice students exceeds intake quotas, the College can pick and choose. In this way it achieves a measure of control over its environment and is likely to choose the most promising students. Such a selection process reinforces the standards and reputation of the College and in turn produces more first choice applicants.

The 1925 Report "The Training of Teachers for Elementary Schools" published by the Board of Education contained a note of dissent which called for increased rigour in the academic work of the Colleges. We have seen how one response to this was increase in degree work. The McNair Report ignored this aspect of the debate. Growth on a wide front of necessity had to replace academic aspirations. Subsequently sixth forms increased in size and efficiency, and Colleges began to receive entrants who had normally completed a course to "A" level rather than matriculation. By the 'fifties the average college student had followed a course similar to the intending university student, though usually with less success, and was indeed frequently an undergraduate manqué seeking an alternative form of

higher education. The 1957 "Pamphlet 34" and the H.M.I. document Scope and Content of the Third Year Course again raised the question of academic rigour. The Robbins investigations showed the rising standards and the overlap in ability range between university and non-university institutions. This trend was consummated by the introduction of the B.Ed. degree. In the College studied 15% of the entry are now following a B.Ed. course; the number will probably rise and an Honours degree was introduced in 1971. This university-orientated area of the College's work represents a third specialised sub-environment to which Departments of the College respond differentially, by adapting their courses, selecting their students, and perhaps most significantly of all, by recruiting their staff.

The most obvious differential response is in the professional area of the College work, marked by the emergence of a large Education Department. Until the post-war period subject teachers supplemented the Master of Method in respect of the professional aspect of training, which was quite certainly limited in scope and effectiveness. It was not untill the late 'forties that an Education Department as such was set up. But major development had been taking place in the meantime outside the Colleges, the most notable being the Emergency Scheme for training teachers. Under this scheme about 20,000 mature students passed through a very intensive course which necessarily paid great attention to their technical proficiency. The

scheme was staffed predominantly by personnel from outside the Training College milieu, and a distinct philosophy grew up within it. As the Scheme was wound up in 1950-51 its personnel began to move into College posts, possibly in relatively greater numbers into the expanding Education Departments, than into the subject fields. They brought the newer philosophy and practice with them. The consequence was a greater sensitivity to the professional and technical aspects of teaching, and further development in an Education course which went beyond method into principles, and into the disciplines of psychology, sociology and philosophy. This increased when the need to hurry through a two-year course was removed in 1962.

When degree work was recommenced in 1966 the subject Education was the essential requirement for all students and gave the degree its particular character. St. Luke's is doubtless untypical in the slow rate of growth of its Education Department until the late 'fifties; though it was not until that period that personnel with higher qualifications in the supporting disciplines as well as having teaching experience became available in reasonable numbers. For the initial period up to the mid-fifties the staff ratio of students to educationists was about 100 to 1. But as this ratio improved to its present figure of about 60 to 1, new responsibilities were added to the Department. The Primary Course expanded as more mature students and women came forward; the early one-year courses, and the post-graduate course which replaced them made relatively

greater demands on the Education Department both in organisation and teaching load than on other departments. Responsibility for teaching practice and specially intensive use of Education Department staff in supervision was accepted. Finally a special relationship with the schools - Study Practice - was worked out within the Education Department and developed rapidly under the three-year course.

The requirement of Education as a compulsory subject for B.Ed. at length caused the recognition of Education as a subject on equal terms with those of the other Departments. But equality of staffing has not been achieved.

The striking aspect of this differential adaptation was that it was much less the result of direct external pressure groups, after the influence of the Emergency Scheme ended. There was no organised national supporting movement but rather the development of a favourable atmosphere arising from a variety of influences; these ranged from the schools' need for a new post-elementary curriculum, the growing power of the child study movement, the developing links with the universities and the growth of such bodies as the N.F.E.R. It was in essence a development resulting from a desire amongst educationists themselves to put the professional training of teachers on a systematic footing and a determination to attain parity of respect with the other disciplines.

Though the College had been growing slowly it remained a small and relatively simple organisation until 1958 when the decision was taken to expand to five hundred

places. The staff still did not number thirty, a high proportion of them were or had been residents for substantial periods, and the College was managed in a personalised way by the Principal. It had hardly begun to differentiate into departments at this time, and in the recollection of the staff who knew it during this period, still retained a close family-like atmosphere and common belief system. It seems reasonable to suppose that although different members might give different weight to the religious, the academic and the professional elements in the College culture, it remained a unitary culture. But after 1958 came a period of very rapid growth and internal change, which will now be examined.

The contemporary context, and recent performance

Much - for some tastes too much - attention has been paid recently to Colleges of Education and teacher training (Taylor 1969(a), 1969(b) Select Committee on Education and Science, Minutes of Evidence 1969-70, Tibble 1971, Reports of 22 ATO Enquiries 1970, Report of James Committee 1971, Willey 1971, Kemble 1971, Hewett 1971). This makes unnecessary the task of providing an extended introductory account of the system as a whole. I shall notice only the major characteristics which directly concern this study and the College.

Teacher training is labour intensive and uses

moderately expensive labour. At the bottom of the scale a lecturer is paid much the same as a Grammar School teacher without an allowance; at the top, much the same as a university lecturer in the career grade. For much of the decade from 1960 to 1970 young, well qualified graduates could be attracted into the lecturer grade in all but extreme shortage subjects; older non-graduates could also be recruited, so that the range of ages and qualifications of entrants was considerable. This will be reflected in the first cohort of staff to be interviewed.

For historical and administrative reasons Colleges of Education are spread fairly evenly over the country, some being rather local in their intakes, others, amongst them St. Luke's, certainly regional and almost national institutions. They are not, therefore, in serious competition with one another except as regards reputation; though during the 'sixties some Colleges were encouraged to develop 'wings', that is, to develop specially advanced work in designated areas. St. Luke's was a wing College for Physical Education and Science. The coming of the B.Ed. degree tended to make the 'wing' notion obsolete. The majority of Colleges are controlled by Local Authorities, but rather less than a third are Voluntary Colleges, mostly religious foundations which are administered directly from the Department of Education and Science, exactly like Direct Grant Schools. St. Luke's is a Voluntary College.

A further characteristic of the teacher training system in Colleges has been the rapid, sometimes frenzied, pace of

growth. Between 1961 and 1968 the number of students in the Colleges rose from 33,500 to over 101,000 - a threefold increase in seven years. In recent years they have changed from largely single sex to mixed sex establishments. Also during this decade the mature student, man or woman, became a familiar figure. Mature students had been common in the post war period and under the Emergency Scheme; in the 'sixties the teacher shortage was such that the Government made strenuous efforts to attract older students. Officers retired prematurely from the overseas government services and from the forces, people with a wide variety of industrial and commerical experience, and eventually many married women, came forward in such numbers as to make possible what amounted to a two-stage entry into teaching. St. Luke's, for geographical and other reasons, attracted an unusually high proportion of mature students.

During the period of growth the course was extended from two to three years duration; and this was soon followed by the introduction first of a pass-degree B.Ed. and infally an honours-level B.Ed. for which all students were eligible. But the Government always had a doctrine of 'balance of training' between intending primary-school and intending secondary-school teachers. Towards the end of the period of growth the D.E.S. made it clear that it saw the role of the Colleges of Education as being that of producing, in the main, teachers for primary and middle schools. St. Luke's as we have seen, always had a secondary and academic orientation, and this was emphasised and

reflected in staff-recruitment policy during the "Robbins era"; but the D.E.S. pressure to move towards a more primary and middle school orientation was strongly felt after 1968. This contradicted, to some extent, the previous academic policies of the College. Since the war the demand for higher education in Great Britain has risen sharply, outstripping the number of places provided in the university sector. Rising numbers and rising standards have meant that many young people have completed an academic secondary education and developed aspirations towards higher education which have not been satisfied by the aware of a university place. To a marked extent Colleges of Education have been used by such young people as a second best form of higher education; many staff in St. Luke's believed that the College was able to attract academically inclined young people, because of its secondary orientation, more than some other Colleges. The requirements of the D.E.S., in contrast, demanded that a much more professional slant be given to the whole course. The secondary social function of providing alternative higher education alongside the primary one of providing professional training is a very important feature of the College, and as I showed in the previous chapter, deeply embedded in the College tradition. The emergence of the Polytechnics under the Binary system seems likely to mean that for the first time Colleges like St. Luke's are in direct competition with other institutions for sixth-formers who have failed to be awarded a University place.

It might be said that the reorientation was a structural change in the industry. St. Luke's was endeavouring to meet the new situation during the time the interviews were carried out, though the full impact of the new policies had not been felt.

We have seen that from their early years Colleges of Education have been characterised by their close association with Parochial and later Elementary schools; yet one of their major initial tasks had been to give an academic secondary education to ex-pupil-teachers. For this reason the staff tended to be teachers of academic subjects much on a par with teachers in the small Grammar schools as they existed before the war.

Table 2 Numbers and status of teachers in Colleges of Education in England and Wales 1958 - 1970

Source: Statistics of Education, H.M.S.O.

Year	All staff	% Graduates	Men	% Graduates	Women	% Graduates
1958	2491	55.2	808	70.5	1683	47.8
1959	2591	55.5	895	70.5	1696	47.5
1960	2912	57.0	1123	71.6	1789	47.8
1961	3276	58.4	1377	73.1	1899	47.8
1962	3563	58.3	1595	73.0	1968	46.5
1963	4369	52.3	2184	62.8	2185	41.8
1964	4977	52.1	2640	61.8	2337	41.1
1965	5715	52.1	3229	60.6	2486	40.9
1966	6790	53.0	4088	61.2	2702	40.5
1967	7879	53.7	4939	61.4	2940	40.7
1968	9128	55.0	5917	62.5	3211	42.0
1969	10098	56.0	6672	63.0	3426	42.5
1970	10671	56.0	7121	63.0	3550	42.5

Table 3 Growth of staff by departments: as at September of each year

Source: Reports of the Governing Body.

	*	1958		1960					1965					1970	
Art/Design	56	2	2	2	2	3	4	4	5	5	6	8	8	8	8
Biology	61	1	1	1	2	2	2	3	3	3	3	4	4	4	4
Chemistry	65	-	1	2	2	2	2	3	2	2	2	3	4	4	4
Physics	49	1	1	1	1	1	1	2	2	2	2	3	4	4	4
Relig.St.	48	1	1	1	1	2	3	3	3	3	4	5	5	5	5
Drama	-	-	-	-	-	-	1	2	2	3	4	5	6	6	6
English	56	4	4	4	4	4	4	4	5	6	8	9	8	8	8
Economics	30	1	1	1	1	1	1	1	1	1	2	2	2	2	2
French	67	part time									1	2	2	2	2
Geography	49	1	2	2	3	3	4	4	4	4	5	6	5	5	5
History	32	1	1	1	1	3	4	5	5	5	5	8	8	7	7
Mathematics	47	3	3	4	4	4	5	6	7	7	10	11	11	11	10
Music	59	1	1	1	1	1	1	2	2	3	3	3	3	3	3
P.E.	47	5	6	7	8	8	8	8	9	9	9	9	11	11	11
Education	51	2	3	4	5	6	8	9	11	13	17	21	21	22	22
Envir't St.	69	-	-	-	-	-	-	-	-	-	-	-	1	1	1
A.V.A.	-	-	-	-	-	-	-	-	-	-	-	-	½	1	1

(* Date of appointment of present Head of Department 56 = 1956)

The Burnham Report of 1924 points out that the prospects for a College lecturer were in fact poorer than for a Grammar School teacher. From an early period however, distinguished non-graduate teachers from famous Colleges joined the graduate lecturers, particularly as newer Colleges turned increasingly to the training of teachers for Infant and Junior Schools. In the post-war period the bulk of the students and staff in Colleges of Education over the whole country, were women; but during the 'sixties men rapidly overtook women as the larger proportion of the Colleges of Education staff force.

Table 2 shows the growth of the teaching force in Colleges of Education since 1958. The rapid increase in numbers of Lecturers during the expansion led to a reduction in the proportion of graduates for a time, though this no longer holds. It will be noted that a substantially higher proportion of men are graduates than is the case for the women lecturers. The full development of B.Ed. work will no doubt maintain this trend towards an increasing proporation of graduate staff. Because St. Luke's was formerly a men's College and secondary orientated it has an unusually high proportion of graduate staff, almost exactly 80%; and there are only three women lecturers on the full-time staff. It is important to bear these untypical features of the College in mind.

Tables 1 and 3 illustrate the pattern of recruitment and growth of Departments in the College. About 8% of the staff form a very senior cohort quite close to

retirment and occupying many top positions. Three other cohorts of approximately equal size, about 30%, constitute discernible recruitment groups. The first was recruited steadily from 1950 to 1961 and are almost all Principal Lecturers, including the younger Heads of Departments and Lecturers in charge of small Departments; the second, Senior Lecturers were recruited during the first rapid expansion from 1962 to 1966, and the third during the last expansion very shortly before the research began.

The principal output of a college is changes effected in people, though there is a small output of research publications, books, advisory services and staff to other institutions, etc. Tyler, has written that a positive statement of educational objectives would consist of "explicit formulations of the ways in which students are expected to be changed by the educative process. That is, the ways they will change their thinking, their feeling and their actions." (Bloom B.S. 1956, p.25) The transformation process by which these socially valued changes are brought about, which corresponds to the manufacturing process in industry, is essentially communication and socialisation. It consists of social interaction (a) between the professional and the client, and (b) within the client group.

Inputs	Process	Outputs
Plant and finance Staff Students	→ Verbal and non-verbal communication →	Changes due to learning; (knowledge, skills, abilities, aptitudes) Changes due to socialisation: (attitudes, values, expectations, beliefs)

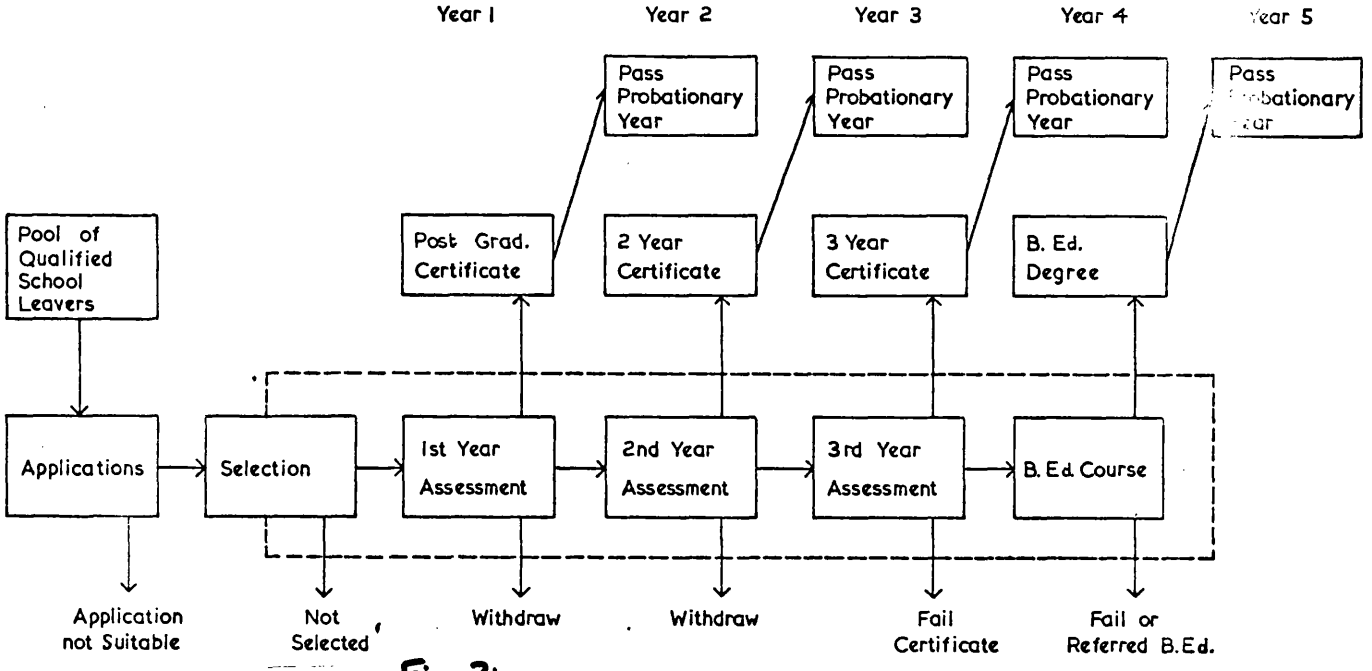


Fig. 24. Points of Assessment in the Training Process.

Most of the changes in people which constitute the output are not directly observable in the way that changes from sick to well are observable in hospital patients; except perhaps in a narrow range of vocational and technical skills, in which case training is a better word to describe the process than education. The above diagram thus has no feedback lines from output to process. The points at which assessment of the effect of the process is bringing about the desired changes is attempted, are shown in figure 2. Ideally there should be a further diagram showing feedback lines through a common information store (the record cards) back to the staff; but this would be misleading. A minor reason is that much information is lost. Only fragmentary information is available about students who fail their probationary year (the only unambiguous market test). Detailed information from internal monitoring frequently remains inside the individual departments, or reaches the cards only in a much reduced form of letter grades, pass/fail symbols or brief subjective assessments. A more important reason why they would be misleading is that drawing feedback lines presupposes that the monitoring succeeds in testing what it sets out to test. It is doubtful whether the methods - examinations, work grading, assessment of performance on teaching practice - are reliable even when applied to simple recall of information by students. The students' information field is probably inadequately sampled. There is no empirical validation of teaching practice assessments,

which in addition to even less adequate sampling may be seriously affected by the teaching situation ("easy" or "tough" school), by tutors' stereotypes, and by the effects of role ambiguity in the students who are torn between meeting college requirements and school requirements.

Turning now to organisation, educational enterprises show characteristics not unlike those observed by Woodward in process industries such as chemicals and oil distillation. Production facilities are rather inflexible except in terms of the direct growth of the plant; though it should be noted that at the cost of congestion and reduction in the amount of instruction carefully tailored to the needs of individual or small groups of students, the throughput has on one recent occasion been increased by 20% for very little extra investment. Part of this may have been by taking up organisational "slack"; but it is impossible to assess how much, since the market readily accepts substitutes (i.e. more cheaply produced teachers). Growth consists in adding more of the same facilities, gymnasia, library space, lecture rooms, etc., and staff. There is a very high proportion of professional staff. The fundamental rigidity is that of departmental structure: a teacher underemployed in one department has only limited value to another and cannot be made redundant,

Current running expenses directly, and capital costs indirectly are related to student numbers by the system of per capita grants. Minor capital grants can be made for special purposes such as setting up C.C.T.V., but major

investments are for buildings and are regulated by reference to the national picture of student enrolments as seen and estimated by the D.E.S. Since students recruit themselves, and the D.E.S. plans are made known in advance, there is little uncertainty save in detail about resources/inputs. Similarly there is no problem at the output end since qualified leavers find their own employment in what has been a sellers' market. Hence imponderables are few. The major consequences of taking a particular decision - to change the mix of students, or to introduce new areas of work such as the B.Ed. degree - are fairly clear in advance and only the administrative consequences need to be considered. These are of course not negligible, involving as they do the career prospects of individuals and the political system of the College. Except as regards reputation, which is a significant long-term goal because it affects the College's chances of attracting the better students, as well as internal morale and consideration by the D.E.S., the College is a"no risk" situation.

Any unanticipated consequences of decisions can usually be accommodated and are much less significant than unanticipated changes in the environment. A 10% shortfall of teaching practice places would cause a serious crisis. The main adaptive mechanism for dealing with changes in the product mix, by changing the ratio of specialist to general students, men to women, etc. Since this can only be done at each annual intake, it is a slow moving mechanism. Any acceleration in the rate of environmental

change would be serious; if the Colleges did not respond quickly enough, other institutions such as Polytechnics or the Open University might well take over some of their functions.

In appearance the control system is highly formalised since there is a clear hierarchy within each department and the rights of each department to use the facilities are specified in the timetable and the allocation of equipment. However, as in professional situations generally, the prescribed element in the lecturer's work is small, and the discretionary element large; this is the main bulwark against bureaucratisation. Status and rank are an aspect of the career and reward system; but in the work situation, which includes a good deal of group planning and team teaching, specialised expertise determines the lecturer's role more than his position in the staff hierarchy. Responsibility is thus widely delegated and tactical decisions are taken close to the task; because of common professional identification there is a tendency for decisions made by A to be much as B would make them. Supervision is minimal, since control is effected by the task itself, group pressures and professional codes. The social system is equalitarian on a first name basis, so that communication vertically and laterally is easy. The Principal concerns himself with relations with the environment, personnel matters, organisational details and long-term policy.

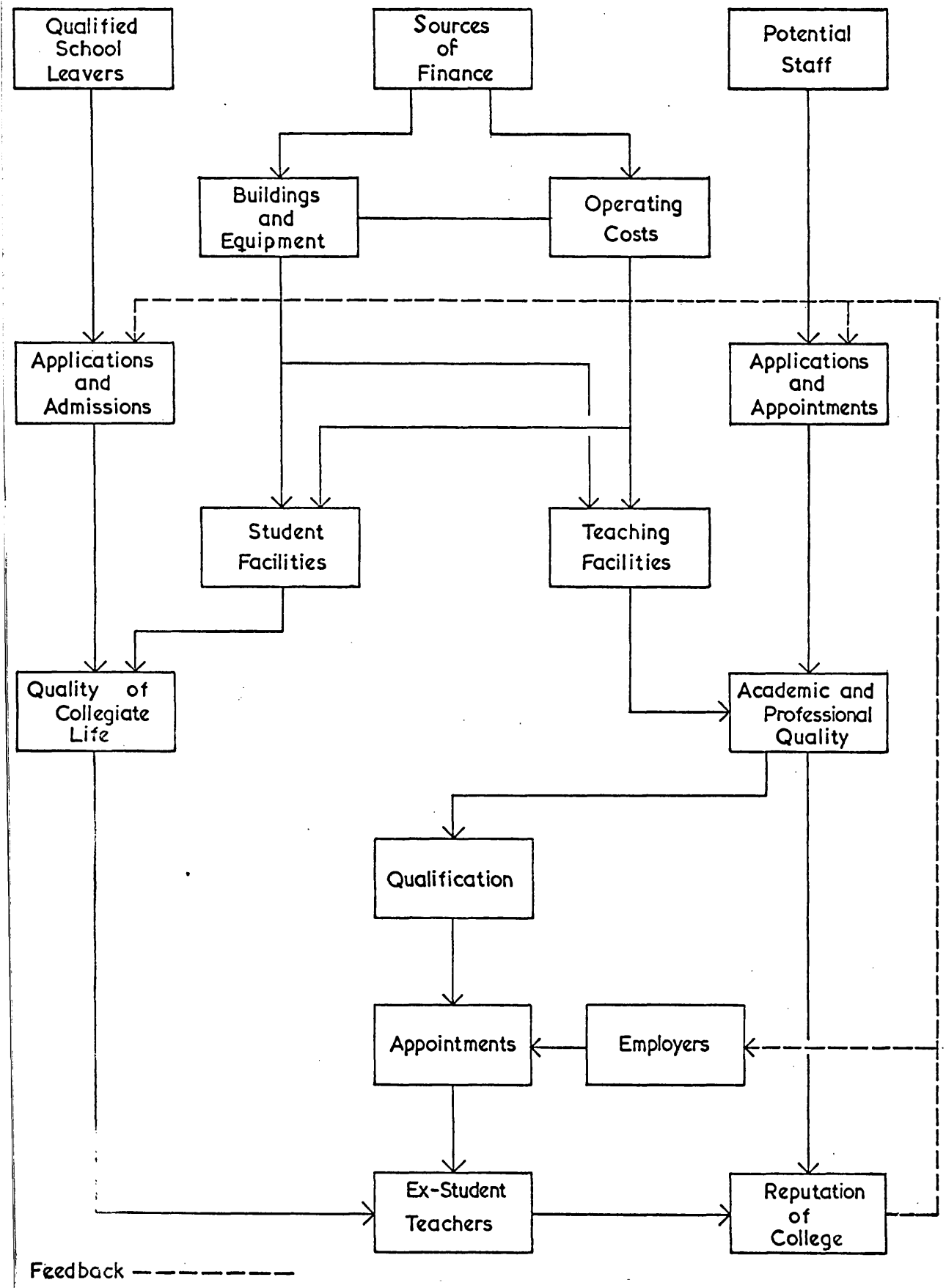


Fig. 3: A first approximation model of the organisation.

The foregoing overview, though highly condensed, gives some idea of the working organisation represented in figure 3, the first approximation model. Having decided to conceptualise it in this way, it remains to consider what would be involved in the attempt to devise measures of overall performance of the enterprise. The justification for such an attempt is the same as for industrial enterprises, namely to produce some precision as to administrative objectives, to act as a yardstick and incentive in relation to performance, to provide an assessment of the response to economic constraints by organisational adaptation, and finally, the straightforward satisfaction of possessing the knowledge. It should not of course be overlooked that there is a fairly substantial cost in collecting large amounts of precise information about a complex situation. The College has only a small administrative section. Also the biases and filters which tend to distort information as it is transmitted through industrial organisations seem just as likely to be operating in the College.

The familiar gross measures of performance available to industry - profit, return on investment, share of the market, value of the equity, and so on - which though they have been much criticised by business theorists, are at any rate publicly understood and psychologically satisfying, are clearly not applicable to Colleges. Colleges produce a collective good - teachers - for which it is neither culturally acceptable, nor indeed practicable, to charge by use; the conventional amount paid is not a reflection of

its true value to the community. Cost-benefit analyses are not practicable, for whilst it is possible to give an estimate of the benefit to one class of persons involved, the students, in cash terms over their career, it is quite impossible to do so for the other classes involved, the pupils, their parents, future employers, etc. From this point of view providing teachers is more like providing an amenity like a park, than providing a highway; we intuitively feel the advantage of a park or education, but we cannot appraise the costs of not providing them, or of achieving the same effects by alternative means.

The problem, in fact, comes down to that of seeking some measures of the use of resources over time, together with checks on the strategic course of the enterprise. Economies of scale with growth are hardly to be expected. For one thing, many costs, particularly the major one of staff salaries (60% of the total) are tied to student numbers by the fixed staff-ratio. More important, in response to demands that non-university establishments shall not appear too obviously as poor relations in the higher education sector, any new facilities provided are better, in the sense of more expensive, more luxurious, equipped in a superior way, rather than merely reproducing the former level of facilities. This affects running as well as captial costs, and more than offsets economies of scale.

Sophisticated techniques for appraising the intensiveness of the use of capital have not been devised for Colleges. Those based on discounted capital flow

techniques or related to simple return on investment are ruled out by the absence of anything analogous to a cash return for money invested. It is not even possible to use a straightforward notion of depreciation in order to spread the capital investment over a defined number of annual intakes of students. Repairs and maintenance are treated as running costs, and the fabric is insured for its replacement cost. The site and buildings in fact appreciate in value rather than the reverse. The only foreseeable danger in capital investments is that specialised buildings may turn out to be white elephants; some universities have invested heavily in inflexible plant in the form of Halls of Residence which are increasingly difficult to fill because of changed student attitudes. It seems unlikely that this will affect the College since because of the nature of the site and the size of the institution a large measure of substitution is possible; for example, plant no longer suitable for its original purpose (study bedrooms) has been re-used for another (tutor's studies) at negligible cost.

Capital invested in Colleges produces more teaching places or better facilities, or more usually, both. The only practicable indication of capital performance is the relation of capital inputs to student numbers over time. It must be supplemented by an appraisal of the balance between facilities and teaching spaces. It is an essential assumption, though a realistic one since plans must have D.E.S. approval, that new facilities are provided at the

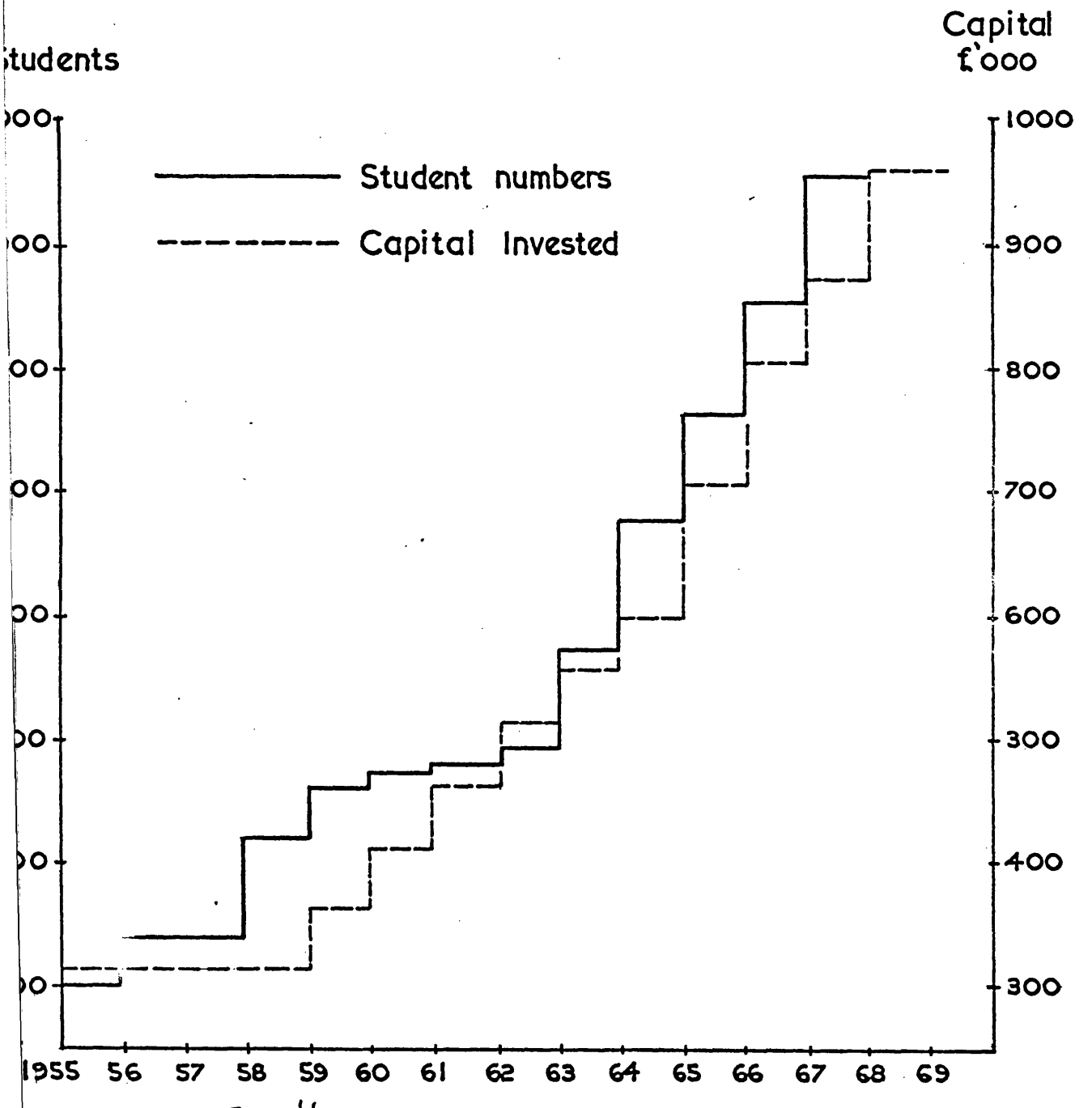


Fig. 4: Relationship between Capital Invested and Student Numbers.

Table 4: Numbers and percentages of resident and non-resident students, 1959-60 to 1968-69

Year	Resident Students		Non-resident Students	
	No.	%	No.	%
1959–60	326	81	75	19
1960–61	414	83	84	17
1961–62	435	85	80	15
1962–63	480	69	217	31
1963–64	494	70	215	30
1964–65	472	61	303	39
1965–66	461	56	369	44
1966–67	467	45	573	55
1967–68	458	43	607	57
1968–69	445	37	754	63

same level at all colleges. Money invested in such things as kitchens, common rooms, etc., improves the facilities without providing extra teaching spaces directly; but it may, with forethought, be used to create circumstances in which, for example, more day students can be admitted (as by having cafeteria rather than formal dining facilities), or some other more appropriate "mix". This means that the existing teaching spaces may be more intensively used.

Figure 4 shows the relationship between capital invested and student numbers. The graph indicates that, without taking account of the changing value of money, capital investment has risen at a rate very similar to the

rise in student numbers, when the cost of major works is shared out over the years taken to complete each project. However this conceals the fact that there has been a substantial change from a majority of resident to a majority of non-resident students over the period, so that capital costs of providing residential accommodation have been avoided. This change is shown in table 4.

From the point of view of the market, the employing schools, residentially and non-residentially trained students are regarded as perfectly equivalent. By this organisational adaptation the College has performed the equivalent of providing places at a cost of about £1,000 each in capital investment, over the whole period; and since only about seventy per cent of this came from public funds the cost to the taxpayer was even less. This is a striking achievement. The cost of providing a place is bound to vary from College to College according to the site, age, structure of existing plant, etc.; what is appropriate to the appraisal of capital investment is not the place-cost in itself, but the trend in place costs over time.

Maintenance grants are part of the cost to the taxpayer. Though they do not directly affect the operating costs of the College, in the light of the shift to non-residents noted in the previous section, the following background facts may be mentioned. Students fall into one of three categories:

(1) Low-cost residents who receive tuition, residence and a modal grant figure of £163;

(2) low-cost non-residents without dependents who receive tuition and a modal grant figure of £382; and

(3) high-cost non-residents, heads of families with dependents, who receive tuition and grants ranging from £500 to £950.

A ten per cent random sample of the first 1,000 grant forms available in October 1969 showed that percentages in each category were 27%, 48% and 25% respectively. For a course of the same length, the cost to the public of categories (1) and (2) is about the same, but the cost of students in category (3) is substantially higher, though many in this category take the shortened two-year course. By taking non-residents the College taps a large source of students who would not otherwise undertake training, but at the cost of congesting the facilities.

The simplest way to look at operating cost performance is the ratio:

$$\frac{\text{annual-operating-cost input}}{\text{annual-number-completing course output}}$$

The operating costs are taken from the annual balance sheet. To allow for the different course length, student output is normalised to the basic nine term course by the formula

$$N = (12a + 9b + 6c + 3d + e)/9$$

where a, b, c, d, e, are the numbers completing 4, 3, 2,

Table 5: Growth of Operating Costs, Student Output, Student Numbers and Consumer Prices, 1958 to 1969. (Sources: Report of Governing Body; Annual Abstract of Statistics.)

Year	Operating Cost £,000	Normalised Student Output	Annual Cost per Student Output £	Student Numbers	Annual cost per student		Consumer Price Index 1958 = 100
					£	Index 1958 = 100	
1958	133	124	1070	414	321	100	100
1959	152	131	1160	452	336	104·6	100·6
1960	180	144	1250	494	364	113·4	101·6
1961	178	150	1185	498	357	111·2	105·0
1962	204	94†	2170†	523	390	121·4	109·5
1963	242	185	1310	583	413	129·2	111·1
1964	260	215	1210	688	378	117·7	115·3
1965	288	221	1300	784	367	114·3	120·8
1966	349	256	1360	845	413	128·6	125·6
1967	391	286	1365	961	406	126·4	128·7
1968	461	329	1400	1069	431	134·2	134·7
1969	545	392	1390	1199	454	141·4	142·3

† Change to three-year course; very small student output.

1 year and 1 term courses respectively. The figures calculated in this way are shown in column 4 of table 5. These figures understate the position by ignoring the withdrawal rate which amounts to 7% on a three-year course. More important however, is the fact that because of the growth of the College and changes in course mix, the total number of students can differ from three times the course output. This fact is emphasised by the marked change in the ratio which occurred when the three-year course was introduced in 1962.

For these reasons the annual cost per student at the

College is a better measure of cost performance, and these figures are given in column 6 of table 5. When an index of the cost per student, column 7, is compared with the consumer price index in column 8, it will be seen that when inflation is taken into account, the cost per student has remained sensibly constant over the period 1958 to 1969. The changes in real cost per student which occurred in periods of rapid growth and then the three-year course was introduced, have now been smoothed out.

A further aspect is the intensiveness of the use of the plant, or facilities. The working day has not been lengthened (many students travel long distances) nor has the number of working days in the year been increased since these are regulated by national agreements. These arrangements are influenced by the reluctance of the domestic staff to change their terms of employment, of students to forego vacation earnings, of landladies to change the basis on which they accept student boarders, and of the staff to change the pattern of their working year. Whilst some Colleges have introduced staggered intakes, four term years, Box and Cox schemes, and so on, the College studied has increased its output essentially by a more intensive use of plant.

Norms set up in the mid-'fifties suggested that the appropriate area of teaching space required for a College of 200 was 16,470 sq.ft., or about 80 sq.ft. per student. This was probably a generous, target-type, estimate, prepared before the period of rapid expansion. The College

studied suffered very extensive war-damage, which reduced its teaching space to about 12,500 sq.ft. Between 1946 and 1958 this was raised to about 22,000 sq.ft., giving a ratio of some 55 sq.ft. per student. When the new building program was completed in 1962, prior to the intense pressure from the Ministry to "crowd-up", the ratio rose to about 80 sq.ft. per student. During the period of explosive growth of student numbers, building continued, but the figures for sq.ft. per student fell as follows: 1964, 60; 1967, 45; 1968, 45; 1969, 40. It should be added that the peak has now passed, and the ratio is likely to improve in the future.

The evaluation of human resources has received very little attention despite the fact that teaching is a labour intensive industry, particularly so in the higher education sector. The three aspects which appear at first sight to be involved in human asset accounting are recruitment, deployment and development. Deployment is the most familiar of these aspects. The matching of teacher-resources to pupil or student groupings need no longer rest on the traditional lore of the timetable expert since it has been recently analysed and put on a theoretical and mathematical footing. Recruitment involves the notion of an appropirate "mix" of staff skills, subject to a principle of requisite flexibility to meet the needs set up by changes in the environment. Individual departments recruit staff without close regard to the overall balance of College staff. A study of staff in the College by seniority cohorts since

1945 suggests that there is a serious imbalance between the many well-qualified specialist academic staff and the fewer experienced and successful practitioners who alone have direct and sustained experience of techniques appropriate to primary and non-selective secondary schools in which the bulk of the student leavers may be expected to teach. This situation is a legacy of the Robbins era when the Colleges were struggling for recognition as institutions of higher education, and the three-year course was followed rapidly by the introduction of degree work. Under the 'Binary System' the Colleges offer non-university higher education, and staff of the appropriate calibre had to be recruited. But in the post-Robbins era there has been an evolution of policy within the D.E.S. In part this is influenced by the changes from a tripartite to a comprehensive system, and from a primary/secondary to a first/middle/upper school system; in part also it has been influenced by the increased number of graduates coming forward for training, the reduced number of mature short course students, and other changes in the "mix" of applicants.

Since turnover is low (less than 2% p.a. over the period 1955-1968) this problem cannot be solved by a changed basis of recruiting; lecturers hold a life appointment. Staff development appears to be the only method available. Deepening and redirecting staff skills is not a matter of research alone as it has traditionally been in universities. Education is an applied science

akin to engineering or medicine; fields in which direct practical experience must complement study. In addition to research and study for higher qualifications there is a need for exposure to new kinds of teaching situations in schools, a wider range of information from the underlying disciplines of psychology, sociology, philosophy, and experience of a richer variety of specialised resources such as C.C.T.V., programmed learning equipment, and the like.

A planned and economic program of staff development, and, in the long term, of balanced staff recruitment, depends on reasonably precise knowledge of the present state of staff qualifications, experience and proficiency, available at the centre rather than scattered through the departments. The beginnings of a systematic and apparently acceptable basis for human asset accountancy have been made at the Unilever Research Laboratories. Scientists were asked to review the scientific areas and techniques with which they were familiar and to list them with a proficiency rating. By means of a simple classification system the individual profiles were collated into an Experience Inventory directly relevant to the assessment of the gross expertise of the enterprise, to manpower deployment and development. Though the method is quite recent the originators believe that the scheme is robust enough to tolerate the subjectivity of the data involved. It seems very likely that the preparation of such an inventory, with the appropriate safeguards would be a valuable tool for appraising the

human assets of the College and highly relevant to policy in this sphere.

The only way in which the overall performances of a College can be evaluated is by the number of students of the appropriate type which it produces in relation to its resources. But the phrase "of the appropriate type" uncovers deep questions about the nature of the adaptive response of an enterprise to a market environment about which it can have little direct information without high costs, and which appears to be in a state of accelerating change in respect of both the pool of qualified school leavers from whom the intake is drawn, and in respect of the school system into which the qualified College leavers are absorbed. Under the 'Binary System' the countervailing power of the consumer appears to be rapidly eroding the producer-domination characteristic of higher education, and outside the university sector at any rate, a more rapid pace of adaptive change is likely to be forced upon educational enterprises. However value attaches to means as well as to ends; the importance of the socio-technical system approach has been to point out the extent to which members of the enterprise become attached to certain means-technologies, the relationships and the control systems that go with them. The "disturbance-cost" of introducing significant changes in stable, long established educational enterprises may be very considerable, and it is hard to manipulate economic and other rewards to buy out the resistance without further disturbance to established

relationships. Some of the problems and processes which related to this area will figure in the discussion of decision making which I shall introduce at a later stage.

In these opening chapters I have sought to show what was the precipitating cause of this research and which theoretical ideas influenced my general approach. By considering what have been its historical goals and tasks, and how it has been related to the wider academic environment, and also by an overview of its recent operating characteristics and performance I have tried to exhibit the main elements in its institutional culture, which gives focus, direction and confidence to the activities that it performs. But I have also argued that it is misleading to put too much stress on this overarching culture, and that there are within it subtly discrepant perceptions and sub-universes of meaning. It is these which in my belief add an important dimension to decision making in the College and call into being important organisational processes the outcome of which is a working consensus. I now turn to a study of staff perceptions, meaning-systems and groupings.

PART II

CHAPTER THREE

In this chapter I present the results of a sub project which constituted the second stage of the research. The object of this was to get a better understanding of how lecturers at the outset of their career in College perceived their role; to examine the hypothesis that different frames of reference might exist amongst the staff stemming from their prior professional experiences; and to explore the tolerance of professional colleagues for the research procedures intended in the main investigation. Since the staff in this cohort were all newly recruited the focus was here upon the individual rather than on the sub-unit.

The junior cohort: 1968 and 1969 recruitment group

The first group of thirty interview with staff recruited during the preceding two academic years, was carried out in the spring term of 1970. At the beginning of the academic year 1969-70 the full-time staff of the College numbered 106. Two members were away on sabbatical years, one of whom was myself; and in the course of the year four members of staff left. There were approximately twenty-five part-time members of staff or visiting lecturers, heavily concentrated in the department of music

but with a few in such fields as English, Speech, Drama, and Geography. These part-time members of staff, with perhaps two exceptions, visited the College for a very few hours each week for highly specialised teaching functions. I decided therefore to restrict interviewing to full-time members of the staff who would regard the College as their only working environment, and that the first area of investigation should centre on the thirty relatively new arrivals. It seemed reasonable to assume that they would not yet have become deeply embedded in the complex political structure of the College and that they would probably not yet have given deep thought to the distribution of power and authority or the way decisions were arrived at in areas of general policy and interdepartmental administration. On the other hand, their fresh impressions of the new role, their motives for entering this branch of the profession, and their initial perceptions of the College as a place to work ought, I felt, to be tapped at an early stage. It seemed natural for a researcher to be interested in their first impressions and the way in which the work compared with what they had been doing previously, and it proved very easy to approach the new staff members along these lines. Also a fairly direct form of interview which asked for views, impressions or beliefs rather than interpretations or explanations of College processes could be used.

The majority of this group were people whom I had hardly greeted, though I did know five or six by their first names since they were in the same Department as myself.

They knew little about me or the research I was undertaking, especially after I had been away for the important autumn term. I could expect that the interviews would be carried out in a less personalised atmosphere than would be the case when I came to talk to more senior members of the staff with whom I had been working for years.

Many studies have been made of workers at the operative level in industry the main outcome of which has been a great increase in the sophistication of arguments relating to their motivation, the wage-effort bargain, the effects of social groupings on productivity and problems arising from the introduction of changes in the work technology. By contrast few detailed studies have been made of executives, managers and employed professionals. They are less accessible to formal techniques of investigation: Rogers (1963), found that not a single one of a sample of otherwise well disposed and cooperative executives was willing to complete his written projective and other devices, though they were willing to be interviewed. Also their skills are relatively advanced and in short supply so that whilst an observer can start work on the shop floor with little training and thus quite easily set up a participant observation situation, not many investigators have the precise skills that would allow them to work alongside such a professional group without long induction procedures. The position of the investigator of the upper echelons is more apparent, obtrusive and exposed; he normally has to accept the better known role of consultant.

My research technique was different from that used in the Bank-Wiring room where researchers took no part in the production process but merely observed and later interviewed; and from the later techniques where investigators worked as full-time operatives. I was an insider. I had by a well understood process - taking a sabbatical year - stepped back from the social and work situation, to some extent disassociating myself from it. By working at home, being known to attend the School of Management of a neighbouring university and to be engaged in research I appeared in a different role and exhibited new behaviours; but all this was superimposed on my familiar role as a member of the enterprise both in its social and technical aspects. The effect was to produce considerable depth of knowledge and facility of approach combined with great possibility of bias and distortion. But unless it is said at the outset that because of the latter problems enterprises can never hope to help themselves in a period of increasing acceleration of change and of need for adaptation, the use of insiders is inevitable; it is insiders or no-one. I did not find my new role an easy one, and some colleagues, as is natural, commented upon it. Following a suggestion made in one of the research seminars at Bath, I usually replied to such comments by saying that my main interest was in making a very complex situation somewhat more intelligible, and certainly not to make personal evaluative judgements about particular aspects. I think this was accepted. It is an important

advantage that the insider can hope to manage the incpetion phase of the investigation quietly and unobtrusively so that only a few members at a time have it forced on their attention.

The social centre of the College for the staff was the ground floor of the Staff House which contained the bar, common-room and post room; it was in fact the Staff Club for which all staff paid a subscription. Members therefore came in frequently to collect post, for coffee, buffet lunches and afternoon tea, for a break and for informal meetings. By merely taking up a strategic position during one of the breaks I was able to arrange for three or four interviews for the following few days without difficulty, though towards the end I had to stalk the last few people on the list. When anyone came to be interviewed I met him in the common-room and we went together to the Conference Room on the first floor where the interviews took place. This room resembles a board-room and is used for similar purposes; it offers conditions of comfort and privacy. It rapidly came to be seen as my working space and groups who had every right to use it began to apologise for asking me to vacate it. The interviews were usually carried out at a small table in one corner. They were tape-recorded and usually lasted for an hour, though often more. As we talked I made outline notes of responses on the interview schedule, and completed these later by a transcript. This proved to be a convenient method since the interview could proceed at the pace of a normal

discussion, but gave a considerable amount of verbatim information. Transcription usually took two or more hours, apart from the time spent in classifying and grouping responses. In only one case did the tape recorder fail to work adequately; it was possible to reconstruct the interview from my notes, though with some loss of verbatim exactness.

I found it best not to attempt more than one interview of this type a day, and to transcribe and roughly classify responses at once. During this period an important development was taking place in the College, the discussions and planning for the change towards a greater Primary School orientation required by the D.E.S. I wanted to be about so as to observe and participate in the discussions on this topic as much as I could. I timed the interviews and the transcribing to leave me free to be in the common-room at times when it was crowded with staff.

At first I was apprehensive of refusals or dismissive attitudes on the part of the staff, for by no means all professional people are enthusiastic about sociological research, nor sympathetic to its methods. However the great majority of the people I interviewed were very willing to talk about the change in their personal and professional lives which coming to College had involved, and in general they welcomed the opportunity to give their views and impressions. Several commented that the interview was a pleasant experience; no one showed signs of wanting to hurry through it and get away. I freely

supplied details of my own career and training in order to signal a general atmosphere of openness, and my willingness to participate in collaborative discussion on an exchange of information basis, though with the assurance of strict confidentiality. I tried to indicate that I wanted to discuss responses rather than ask a series of questions; after the initial factual data, this is the form the interviews usually took. In this atmosphere I could feed back responses to the respondents to make sure I had understood them correctly and was putting the appropriate construction on what they said. If, as Sullivan (1954) has suggested there is a quid pro quo element in interviews, the staff had, in return for the information they gave, the satisfaction of talking about their views, feelings and experiences, to an interested and appreciative listener, aware of the nuances of academic life and the college career pattern, and who could sometimes supply information in return. As far as I can judge, all the respondents spoke openly and treated the interview seriously. Naturally people vary a good deal in the length of the responses they make, perhaps because they are not talkative by nature, or merely because they have not given much thought to the aspects of their situation which interested me. But on the whole, lecturers are highly articulate people accustomed to explore ideas in discussion; even, subject to reasonable safeguards, highly personal feelings, intentions and aspirations. I had no choice but to use a collaborative method since I was frequently asked to

comment on, or evaluate a response in the light of my own experience, so that a kind of joint appreciation followed; to refuse this would have meant the loss both of goodwill and information. Quite a number of the people I interviewed were relatively sophisticated in their appreciation of the procedures I was using and showed a high interest in the technical aspects of the research. I should add that it was an interest not always free from scepticism about the value of interview methods. Whenever I introduced the ranking question and sentence completion questions there was a loss of tone in the interview. My reading and prior experience of interviewing teachers had led me to believe that written questionnaires would meet with resistance in enquiries of this nature, and I have had no reason to change my mind. Also I felt some delicacy about asking colleagues their precise age and the exact class of their degree; instead I used fairly broad categories in both cases. Only three respondents volunteered precise information on these topics.

Prior service and entry to College lecturing

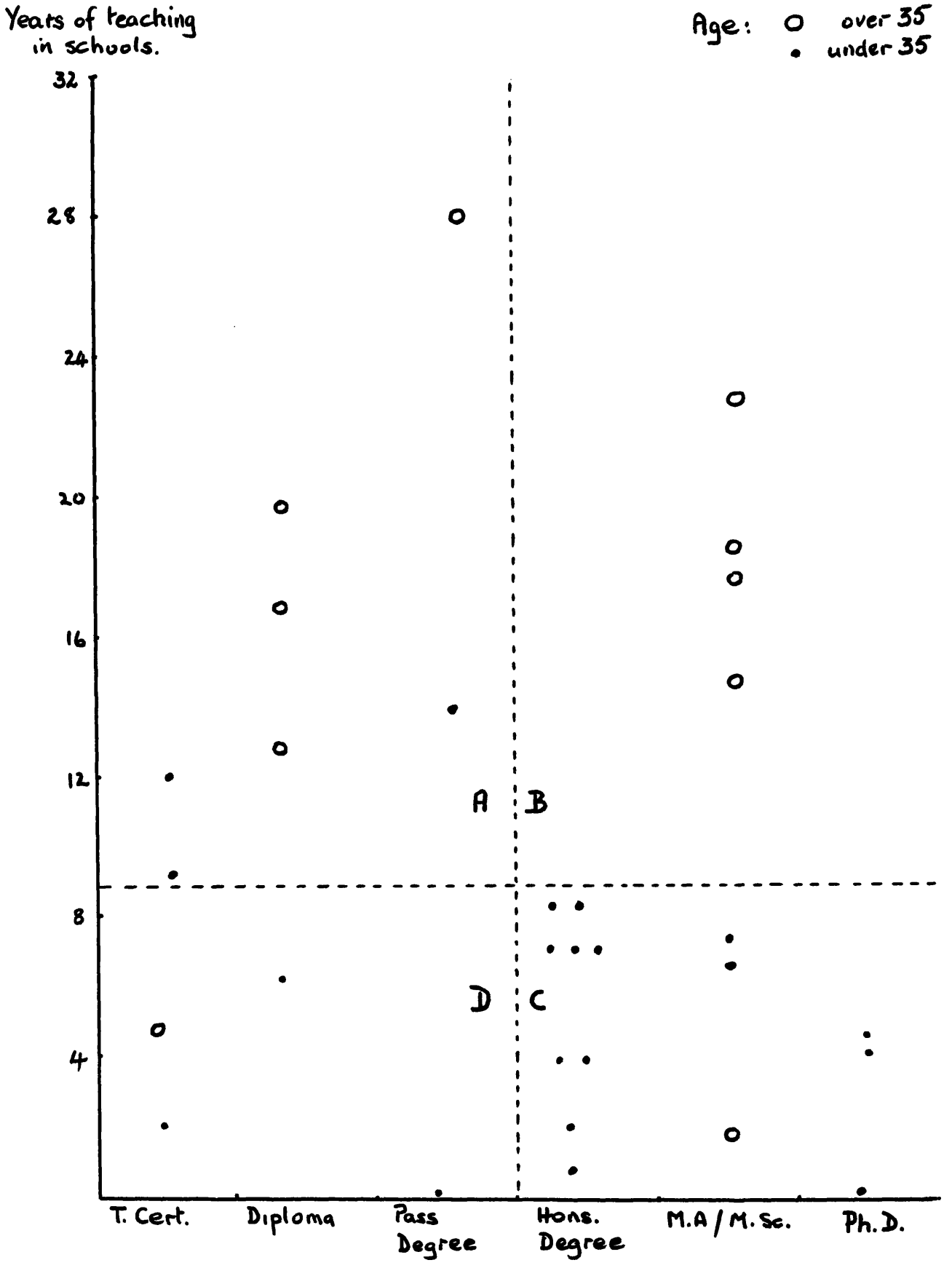
The results of the first set of questions are summarised in tables 6, 7, 8 and 9 and diagram 5.

Table 6: 1968 & 1969 staff recruitment cohort by subjects

Subject	Number
Education	8
Sciences	6
Mathematics	4
History	3
Art/craft	2
P.E.	2
Drama	2
R.E.	1
Geography	1
English	1
	30

Table 7: Age and mean previous teaching experience of respondents

Age	No.	Mean length of teaching experience in schools
Under 25 yrs.	0	-
Under 35 yrs.	18	5.5 yrs.
Under 50 yrs.	10	12.4 yrs.
Over 50 yrs.	2	25.0 yrs.
Total	30	(all) 8.9 yrs.



Dia.5 Age, level of qualification, and previous experience of teaching: first interview cohort.

Table 8: Lecturers own teacher-training by type

	College of Education	University Dept. of Education	None	Total
Quadrants A, B & D	13	2	0	15
Quadrant C	3	8	4	15

Table 9: Satisfaction with training received

	Very satisfied	Satisfied	Dis-satisfied	Very dis-satisfied	None	Total
Quadrants A, B & D	3	7	2	3	0	15
Quadrant C	2	3	4	2	4	15

Two points call for comment. It is a distinguishing feature of Colleges that they recruit staff over a wide range of age and experience of teaching. But in the case of St. Luke's, diagram 5 indicates two broadly differing types within the recruitment cohort. Half the group cluster in quadrant C with an honours or higher degree and less than the mean teaching experience of 8.9 years. Of the fifteen in this quadrant thirteen had taught exclusively in selective secondary schools and six were scientists. By contrast, the long-service teachers in the upper quadrants A and B included five Education lecturers and four Mathematics lecturers who had been recruited particularly

for their classroom experience and who devoted much of their time to the classroom-orientated professional course in Mathematics. These mathematicians had a mean length of school service of 15.5 years, the educationists a mean length of school service of 16.0 years. The group in quadrant D were all former students of the College and consisted of a former B.Ed. student acting as a full-time replacement for a member of staff on leave, a former mature student with six years teaching experience and considerable relevant craft experience, a well qualified remedial specialist and a technical specialist in the Drama Department. Of the fifteen lecturers falling in quadrants A, B and D, only two had taught exclusively in selective schools, and this group also included all the Primary school specialists.

The more highly qualified group in quadrant C are thus more likely to have no direct experience of Colleges of Education, and hence a lower level of anticipatory socialization to the role of College lecturer; they are less experienced in teaching and have frequently only taught a narrow range of abler pupils in academically biased schools.

Secondly there is a greater tendency for respondents in quadrants A, B and D to have been trained and to evaluate their training favourably. It is not unlikely that they do so because their training in Colleges constitutes their major experience of higher education whilst to those in quadrant C training merely represents an addition to their degree course at a rather general and undemanding level.

Two of the three well qualified respondents in quadrant C who had trained in Colleges before taking in-service degree courses, both Lecturers in Physical Education, were satisfied with their training. However the general level of satisfaction was rather moderate, as is frequently the case with occupations which involve dealing with people. Prison officers, probation officers, social workers and even the clergy tend to be critical of their initial training as out of touch with, or irrelevant to, conditions in the field. It is evidently not the over-conformists who return to staff the Colleges.

The next set of questions related to motives for entering College lecturing. The two broad ways of entering the College are by invitation and by application. Using both those means there are two kinds of entrants: those who are following or have recently completed a course which leads them to look for work in a new area, and those who are merely changing their employment in teaching. Since some of the courses followed by the former group were given by members of the staff of the College, the prior course may lead to invitation. Former students of the College after suitable experience in schools as well as skilled and successful local teachers with special experience in fields in which the College required strengthening, and who were well known because of the contact the College has with schools during teaching practice, were also recruited by invitation. Of the thirty interviewed, nine were invited, of whom six were former students of the College;

this group tended to concentrate in the Mathematics and Education Departments, in quadrants A, B and D.

Similar to this invited group were five Education Lecturers, one a former student of the College, who had completed or were on the point of completing a qualification in Education which may be fairly regarded as a deliberate preparation for a career in teacher training; three were Master's degrees, two were Diplomas. This group of fourteen thus consists of people whose entire career pattern orientated them towards teacher training rather than any alternative career; only one of them fell in quadrant C.

The other sixteen were teachers who were looking for a change of work. They applied in response to advertisement in the normal way. Of these, four were seeking a new post as a result of recently completing a higher qualification in their subject; all these four were scientists, three of whom had taken Ph.D., and one an M.Sc. Two of the group of sixteen, both P.E. lecturers, had been trained in Colleges of Education and were working either in, or in close collaboration with a College of Education before coming to St. Luke's. Fourteen of this group of sixteen fell in quadrant C.

Table 10 shows the range of alternative posts which the respondents considered were open to them at the time of appointment to St. Luke's.

Table 10: Alternative posts regarded as likely by respondents

Type of post	Number
School teaching	5
Headmaster (Primary), Deputy Head or Head of Department	16
Organiser, Advisor Inspectorate	4
Other Higher Education	3
Other	2

As the quadrant diagram 5 shows, a few of the lecturers had relatively little experience as qualified teachers; it seems reasonable that they might not expect to get at first a post in school higher than the teaching grade. The largest group however saw their most likely alternative as a post of special responsibility or Junior School Headship; of the sixteen who made this response, ten had already held such posts or been offered them. Posts as Organisers, Advisers, or in the local Inspectorate, are clearly similar in type to Lecturing in College, particularly in practical subjects such as P.E. Only one respondent mentioned the possibility of H.M. Inspectorate, which, like Grammar School Headships, might have seemed to be aiming high. Two respondents mentioned Technical Colleges or Polytechnics, and one a University, and the remaining two mentioned posts outside teaching, such as the B.B.C. I had in mind the possibility that some respondents might see a post in a College of Education as a second best to

a University post, particularly for those who had just completed a higher degree. I went on to ask whether the post in a College was the preferred alternative amongst those which the respondents envisaged at the time of application, expecting the affirmative answer, since they had after all, accepted the post. Although some remarked that it was just "the job that happened to come up" amongst several alternatives, there was no sign of anyone who had been disappointed of a University post. Indeed some expressly rules this out, stressing their interest in schools and teaching, or indicating that they were not interested in University type research. However, since a quarter of the staff who had left the College other than by retirement since 1955, had taken University posts, the option was to some extent still open.

For some, the, a College post is simply one alternative amongst others, which happens to arise during a period of unsettlement; and for this sample it is more characteristically the highly qualified who enter in this way. Reducing, in Festingers (1959) phrase, the cognitive dissonance between their prior expectations and the reality of the work, they would be likely to harmonise the decision by emphasising the academic aspects of college work. It seems reasonable to expect the academic frame of reference to be more frequently revealed amongst this group in their perceptions of what the College was primarily for, what the essential nature of its task was. In contrast, the more professionally experienced group might well feel that

by gaining a post in a College of Education, of which they had considerable personal knowledge, frequently because they were themselves trained for teaching by a College course, they were realising a longstanding ambition or at least a substantial step up from teaching in schools. Such recruits might well have a rather different frame of reference for perceiving the College.

I did not expect clear-cut categories. As usual the extremes were fairly well represented. It is perhaps not so surprising as it seemed to me at first that in so many cases (thirteen with two others possible) taking a College post seems to have been a way out of a career difficulty, a solution rather than the result of an ambition. One lecturer said

"I accidentally fell into this post."

and another said is was purely a question of which job came up first; the College happened to be the one. Another had been in an overseas University, and was only interested in teaching in higher education. Several had been displaced by reorganisation. Two were well qualified and experienced Heads of Department in Science who had lost interest in grammar school science teaching, being in the words of one of them

"More interested in children than test-tubes."

Lecturers in Colleges, then, are predominantly recruited according to this sample, from those who hold or can expect shortly to hold senior posts in the maintained schools system. Eighteen of the recruitment group thought

it was a step up in the profession to take a post in a College of Education, seven thought it was not, and four were uncertain. The question whether it was a step up was a preliminary to a group of questions intended to throw light on the comparative standing of College Lecturers in the teaching profession. Perception of status is a complex matter; the subsequent questions showed that much more enters into the Lecturer's view of his position than simply questions of salary advantage.

The opportunity to do advanced work was mentioned by quite a number of the respondents as an important factor.

> "I wanted to do something more stimulating than Grammar School work."
>
> "....more academic work than is usual in (school) teaching."
>
> "more in real physics"
>
> "I want to get back to the subject."
>
> "I want to teach, but I'm not interested in school teaching."

Such responses represent the outright academic end of the continuum and by the chance of this sample happened to be fairly concentrated in science. But only one of the recruitment group mentioned the comparison with University levels of work, though amongst the pilot interviews carried out before the main research was begun two respondents had implied that academic teachers came to work in Colleges because they did not quite make it into Universities. University promotion is slower, and it is

unlikely that the average lecturer who entered a University post in his thirties would be much better off financially over his career than a College lecturer since anyone of such calibre would most probably become a Head of Department in a College. Significantly the respondent who mentioned University work was one of the youngest and was very much orientated to academic research.

Characteristic of the other end of the continuum are what might be called "mission-type" responses. Here the Lecturer believes that certain classroom approaches to his subject are particularly valuable and should be propagated.

> "I thought the way.... (subject)...
> was taught in this school was very much
> the right way, the way it is beginning
> to be taught in many schools, and I thought
> the gospel should be spread a bit."

Another in the same spirit said he was

> "looking for an area of work in which it
> seemed that things needed doing: being
> slightly presumptuous, thinking I could
> do things."

Between these lay a middle range of responses which emphasised the freedom which goes with College work, the possibility of standing back outside the narrow constraints of the classroom to reflect about methods and new approaches without the need to consider examinations and curricula, to read widely and pursue interests in human relations, and how children think rather than the routine tasks of

traditional teaching.

Reference groups

I continued with questions intended to throw light on Lecturer's reference groups or reference categories. This is not a simple matter since people use dfferent reference groups or categories in different contexts; indeed a thorough investigation of this aspect with a carefully chosen sample would be a useful piece of research since College Lecturers are such a mixed group. I restricted my questions to asking respondents where they thought College Lecturers stood in the profession, with which groups they felt identified and with what category they thought they should be associated for salary purposes. At a convenient point during this discussion I presented each respondent with a separate sheet containing a question which invited him to rank six teaching occupations of which one was College of Education Lecturer, in order of their social standing as it seemed to him.

In framing these questions I had in mind the frequent reference that is made to the position of Colleges of Education between the schools and the Universities. The policy of the A.T.C.D.E., of which about 70% of the Lecturers are members, of seeking parity of salary with the University lecturers may have been strengthened by

the spread of B.Ed. degree work which brings lecturers in closer contact with University people; though in the salary negotiations in 1969 the evidence presented in support of this claim was rejected by both the management representatives on the Pelham Committee which regulated salary scales, and by the arbitration tribunal. I thought that the University aspiration might be reflected in the responses of those lecturers who had recently been completing research in Universities, whilst lecturers who had very long standing as teachers I expected would think in terms of schools and the Burnham salary scales. Table 11 summarises the responses.

Table 11: Respondents' view of the standing of College Lecturer

Response category	Number
Above teachers	4
As Head, or Head of Department	10
Intermediate between schools and Universities	6
Profession not hierarchical	4
Uncertain	6
Total	30

There was on the other hand, considerable agreement in the ranking of the six posts, those of Lecturer in Further Education, Head of a Secondary Modern School, College of Education Lecturer, Head of a large Primary School,

University Lecturer, and Head of a Maintained Grammar School. For the thirty rankings the coefficient of concordance W was 0.665, which is significant at the 0.001 level, indicating that respondents were broadly ranking on the same criteria. In mean rankings the College of Education Lecturer was placed third after University Lecturer and G.S. Headmaster. I next divided the rankings into two arrays, those of the quadrant C group and those of the rest, and compared the sums of ranks. This gave the following figures:

Table 12: Sums of ranks for two arrays

Title	Sums of ranks	
	Quadrant C group	Rest
University Lecturer	20	17
Head of Grammar School	26	33
Lecturer in College of Education	53	46
Head of Secondary Modern School	56	71
Lecturer in Physical Education	64	68
Head of Primary School	73	77

There is no significant difference between these two sets of figures ($t = 0.23$ n.s.). It may be concluded that both groups are using similar ranking criteria, and share a common view of the standing of the College Lecturer relative to the other five posts.

The question about respondents feelings of identity with other groups in the profession was one of the most difficult in the whole interview for respondents to answer, and I was frequently asked to try to make it clearer. This caused dangers of my using loaded turns of speech since I was enquiring to what extent Lecturers ratained sympathy and some feeling of partial identity with groups in the profession they had left. I replied when necessary by pointing out that the respondent had recently been through a period of transition from teacher to Lecturer, involving some change of professional identity, and that I was interested to know to what extent they retained their former feeling of belonging to a particular group in the profession.

Two lecturers replied that they felt that their primary identification was with University Lecturers. Fourteen mentioned teachers without qualification, or picked out some group such as craft teachers, teachers in Comprehensive Schools, or Primary Schools, or progressive teachers. The rest felt that they had effectively re-identified as College of Education Lecturers and had left behind close feelings of identification with teachers. Six respondents said that feelings of group identity were not very important in their minds.

I interpret these responses with some caution. It seems that amongst these newly appointed Lecturers there is (a) a group who quite rapidly identify themselves as Lecturers and become absorbed quickly into their new role;

(b) a small group who are individualistically inclined, who wish to work in their own way and are not much concerned with group ties in the professional sphere; and (c) a group who take time to detach themselves from their former identity and who remain ex-teachers for a fairly lengthy transitional period. This latter group contained two people who were returning to teaching, and a group of well identified long experienced classroom teachers. Clearly it takes time to identify fully with the new role as well as to learn it; but whether long previous service in schools is an important factor in the time taken to do this is not clear cut. What is clear, and I confess I found it surprising, was that there is no strong reference group indication amongst these respondents. The view that there is a salient outside group to which in one situation or another lecturers turn their minds in the process of clarifying values and aspirations or degrees of satisfaction with their rewards, received no support from this set of interviews.

The question of identity seems to merit further investigation. Behind this group of questions lay some ideas about the possibility of feelings of marginality amongst Lecturers in Colleges. By their own perceptions they are above teachers, the great bulk of the profession, but they are denied the full status of genuine Higher Education and parity with University lecturers. Externally viewed the situation of the College Lecturer appears rather ambiguous. On the one hand the whole history of

this occupational group since 1902 has been that of an aspiration to join the higher education sector, which until the comparatively recent rapid differentiation within that sector, meant an aspiration to the status of University lecturers. In the period of "waiting for Robbins" in the early 'sixties this aspiration was marked; there appeared to be a real chance that Colleges would become fully constituent colleges of Universities with which they were associated through the Area Training Organisations. Against this may be set the fact that the great bulk of the staff have served for a number of years in schools and bring in with them many of the values and feelings of teachers. This is somewhat analogous to the marginality of the American middle class described by Hamilton (1966). But Hamilton's article is written at a very general level and does not directly suggest empirical procedures for pushing the concept further. Silverman's (1958) study of clerical workers which refers to Hamilton's article, is more empirically based, but turns on notions of reference group and common identifications which are not easily identified at least amongst this recruitment group. For this group, status-awareness is not strongly developed. Their contact with teachers is not one that is likely to stir up feelings of need for differentiation, much less defensiveness. If they are denied the status of University lecturer, their career in College has been a remarkably good one, with promotion into the career grade regardless of qualifications, and without even a nominal

efficiency bar. There is the possibility of advanced work for the highly qualified, and freedom from the "publish or perish" pressures to research.

Perhaps the better comparison is not with marginal groups but with staff groups in firms who have a satisfying and pleasant personal job, and few associations with other groups to arouse their feelings.

College lecturers have a life appointment to some extent insulated from fluctuations of employment in the market situation. Their contact with school teachers is ritualised; on teaching practice they are visitors to be treated with politeness, if perhaps not with particular respect; whilst in Teachers' Centres they are simply co-workers with some special expertise. Few appear to be treating their role in the College instrumentally in any obvious way, that is, as a stepping stone to other posts. Once in, they tend to stay in the college world, working up through the grades with little staff turnover, though occasionally leaving for a promotion to another College. The intermediate role, rather than being seen as anxiously marginal, is cheerfully accepted; part of the task is to interpret and transmit to the profession at large the advances made by University researchers. This was made explicit by a number of respondents, for example the one who said:

> "I think we're the link people between the universities who are finding new knowledge and new techniques; and the men between

> their very sophisticated techniques and expensive equipment and the schools..... we should be the innovators, passing the stuff down, simplifying it."

Having entered an institution of high standing in its field, situated in a very desirable geographical area, their predominant orientation is to the institution in which they work. This, not the public community of their discipline, is the centre of their loyalty. Cotgrove studying scientists (1965) found a third group of "private scientists" who did not attach so much importance to publishing results as to the satisfaction of practising their discipline and gaining the recognition of their colleagues in the institution. College lecturers appear to be a very similar group.

In Gouldner's (1957) terms they are institution, rather than profession, loyal. Only a minority of this cohort are wholly committed to specialised professional skills in their subject and outright supporters of departmental specialisation. The majority were at least open to inter-disciplinary attitudes and flexible as regards subject boundaries. Many would welcome departmental integration The one category of Gouldner's that is clearly recognisable is that of the dedicated, having an internal reference point. They come to the post with a conviction, in some cases, as I have suggested, amounting to a mission, to work in a chosen way and bring to bear influences which they believe are valuable. Though they aspire like anyone

else to the rewards of promotion, their definition of career success is much more that of doing a good job than achieving a high position. One respondent mentioned that when he had been discussing the standing of College lecturers with a more veteran colleague, that latter told him that "teachers who come here view us as folk who have 'made it'." It may be that having 'made it' into a good College with secure advancement prospects, the need to seek recognition other than from the institution is assuaged.

The next set of questions concerned the job itself. A number of well qualified graduates expected that the work would be similar to sixth form teaching, with a proportion of more advanced, University-type work on the B.Ed. courses which would give them an opportunity to use their research experience. This is partly true, but the proportion of time spent in such work varies a good deal. One lecturer who was leaving gave this as a principal reason; there was not enough work in his specialist field to satisfy him. From lecturers with this sort of prior expectation, there was a steady stream of remarks critical of the requirement that they should, for example, be asked to supervise students in primary schools, or watch students giving lessons in disciplines with which they were quite unfamiliar. The majority of such respondents naturally fell in quadrant C and were unfamiliar with Colleges at first hand. Of this unfamiliar group only two had been interviewed at any other College

of Education and so got some information on the exact nature of the work.

It was clear that for most there was only an informal induction process into the work. Except in the Education Department where there was group discussion in Year Panels under the chairmanship of an experienced lecturer, respondents mentioned only single colleagues as their main source of initial guidance, or stressed that any guidance they received was wholly informal. Many respondents felt that systematic induction into the job was not needed, since informal consultation was always available. On the other hand there was evidence of isolation and poor communication amongst departments. Respondents who considered they needed little or no induction into their departmental duties, on one or two occasions said forcefully that they did not know what other departments or the College as a whole was doing, because the organisation was over compartmentalised; this,

> "I need to know what is happening. I need educating. The students come to me and present me with certain things and I think 'heavens!' What's all this about? It doesn't click somehow."

> "I would like to know very much more about what goes on in College, to put me in the picture as a member of this College. I mean, all I feel at

present is that I am a member of the

..... department."

By means of the question on the separate sheet which invited respondents to say with which other departments their department had most contact, I had hoped to group departments in a manner analogous to that of a sociometric diagram. However the responses to this question were so discouraging that I abandoned the idea. To most of the respondents no other department was salient save for purely adventitious reasons. Taken with the foregoing comments and the fact that ten people mentioned this general area, the size and structure of the College appeared to be adversely affecting corporate feeling amongst the latest recruitment group.

This led on to the steadily recurring topic in teacher training of the relative weight which ought to be given to the teaching of method intended to produce effective teachers in the classroom and to academic subject teaching designed to promote the individual personal development of the students. In the first years of this century when teacher training was nominally accepted as a form of higher education, and in the immediately post-war period after the McNair Report, and again in the Robbins period, demands for more academic rigour and more time devoted to educating students in their main subject were strongly advanced. The mass of the profession on the other hand has traiditonally stressed the craft of teaching, and favoured the "professional" that is, classroom-

method orientated courses. Until 1918 the pupil teacher system, a form of practical training by apprenticeship, favoured the craft aspect. The Parliamentary Committee of 1924 relegated demands for higher academic standards to a Minority Report, and with the approval of the teachers' unions even considered a one year course on the grounds that entrants had now received a full secondary education and only needed the professional course. However the two year course was retqined. The Parliamentary Select Committee on Science and Education sitting in 1970, received evidence from the Headmasters Conference to the effect that professional preparation was inadequately achieved in Colleges of Education, and A.T.O's were instructed by the D.E.S. to conduct an enquiry, in which teachers were represented, into the effectiveness of the College course.

Nine of the respondents saw themselves as primarily subject orientated or strongly so. They used terms such as "keen on my own subject exclusively", "a subject specialist" or "subject identified*, and often mentioning that it was their desire to use their research experience or the opportunity for advanced teaching which had led them to College work. Twelve others accepted some measure of interdisciplinary work or integrated studies, with such general provisos as that "the thread of the subject should be kept" or that they should not be expected to teach individually in areas with which they were unfamiliar. Few amongst this group showed much insight into the

organisation of team teaching or more adventurous approaches to subjects through projects which cut across departmental and disciplinary boundaries; but they were favourable to a measure of collaborative work, especially in second subject time. The remaining nine regarded themselves as generalists or extreme generalists, using such phrases as "Jack of all trades", "a generalist approach", "highly interdisciplinary", "many strings to my bow", "I'd prefer a breakdown of departments", "the College is overcompartmentalised", or "not subject, not comparmentalised, but child orientated". Such approaches are not at all surprising when it is remembered that most of such people have long experience in Primary or Secondary Modern teaching, where subject boundaries are blurred, there is less specialisation of teaching, and curriculum innovations are more developed than in selective schools. One respondent who expressed this view strongly had been teaching in schools for seventeen years, during which he had successively held posts of special responsibility in areas as different as Science, Geography and Religious Education. Another lecturer with twelve years teaching experience had successively taught in different schools, Science, Religious Knowledge and in the Remedial Department.

Seven respondents who were of an academic background replied that they put the main stress on teaching their academic subjects, one commenting that he was "sceptical of a lot of methodology" and others remarking that

classroom method was, or ought to be, the concern of the Education Department. A few responses at the other extreme stressed starting from the children rather than the subject, and emphasised the general personal development of the student, rather than his growth in formal academic knowledge, as the main concern. In the middle ground were the bulk of the responses which indicated that an equal weighting was the ideal. I think this must be taken as a conventional response. Given the traditional stance of the College as an institution much identified with academic work, and with a late developing Education Department probably more isolated than is usual in other Colleges, where the main stress is on Primary work, it is not surprising that attention to classroom method is unsystematic. On the one hand the incoming students are, by their anticipatory socialisation in the specialist sixth form, ready to identify as subject specialists in the manner of undergraduates and are only slowly socialised to teaching and the professional aspects. On the other, since a proportion of the staff, rather concentrated in some departments have only taught in selective secondary schools, and a quite small minority have substantial Primary School experience, it is difficult for many Lecturers to teach realistically about aspects of their subject related to different ranges of age and ability amongst the pupils. The academic subject orientation is much better understood by students; it is safer ground. Those who do stress method and the classroom-applied

approach to the subject are teachers with a long experience and strong convictions, who were, in the majority of cases, specially recruited because of this interest, and the bulk of whose work is either in the Education Department or the professional courses. The suggestion that the Education Department should be responsible for all method teaching has its roots in the past when one of the appointments in Colleges was the "Master of Method" who taught general method presumably applicable to any subject or age or ability range. The shortcomings of any such approach are obvious. Lecturers in Education generally hold that Education is an autonomous discipline and are increasingly specialised in particular areas such as psychology, sociology or philosophy; they are as anxious to teach in these specialised disciplines as are school-subject colleagues to teach theirs. There is little doubt that students are well aware of the unevenness in method teaching, which tends to be done much better in some subjects than others. In general therefore there is likely to be a strong tendency for respondents to avoid precision in answer to questions in this area.

Replies to the question about likely career pattern confirmed that College lecturing is a very stable occuptation. A check on staff turn-over in the period 1955-69 indicated that if temporary replacements for staff on sabbatical leave was left out of account, the turn-over rate was very low, certainly compared with schools where an annual turn-over of 20% is not uncommon. During this

period of fifteen years two staff members retired, and twenty-six left for other posts; that is, an average of fewer than two staff left each year from a staff numbering 25 at the beginning of the period and 110 at the end. Of these twenty-six leavers, five went to other Colleges (two as Principals); five went to Universities (four to U.D.E's); five returned to schools; six went to other establishments such as Field Centres, Art Colleges, etc.; and the remaining five went abroad or were untraced. The replies of the group being interviewed show that there are a few who have come into Colleges for special reasons early in their career (quadrant D) and expect to return to teaching after a few years. There are also those few who do not settle down to College teaching and return to their former spheres. Of the five who returned to schools one became a Housemaster in a famous Public School, another a Headmaster of an H.M.C. School and a third an H.M.I.

It is an obvious argument that from 1959 to 1969 the rapid promotion to the career grade of senior lecturer which averaged two to three years, was such as to hold in staff to the institution. Most of the leavers did go to posts that could be regarded as promotions. But teachers are a notoriously footloose profession; the responses indicated that there were deeper grounds for the stability of the staff. The intrinsic satisfactions and opportunities of the job itself are high compared with school teaching which is the most obvious alternative; and secondary education was going through an uncertain

phase of reorganisation, during the 'sixties. The salary structure is such, that taken with the internal promotion prospects, there was little point in moving to another College except as Head of Department; two who did so repented, and one returned forfeiting seniority. Even staff in the recruitment group who said openly that they had arrived too late to benefit from rapid promotion were still very generally favourable to the career prospects in College, though it must be admitted that as they had only recently arrived they had probably not given a lot of deliberate thought to their next step.

Seventeen respondents saw themselves already as firmly committed to College lecturing as a career, many, especially amongst the older ones indicating they considered they had now taken up a life tenure post in the College. Three educationists amongst the group expressed hopes and ambitions to move into universities; all of these had higher degrees and substantial teaching experience. The remaining ten included the leaver, the three who expected to return to teaching, four who thought they might take posts as Headmasters or Heads of Department, and two who said that their view of the future did not extend far enough for them to give a worthwhile answer. In the light of the suggested alternatives, it seems very likely that the former low turn-over pattern will be maintained, though it could well be that the development of the Polytechnics might provide an attractive career prospect for some junior staff as the Binary system develops.

Compared with most other educational enterprises the stability of staff in the College is a major feature.

I pursued the question a little further by asking what the respondents would consider a successful career. I was hoping to discover more about levels of aspiration, and I wanted to give a little more opportunity for the expression of ambitions, which might well have proved a discriminator amongst this group. As might have been foreseen since the bulk of the respondents were in mid-career and so could reasonably be supposed to have developed a realistic view of their own career possibilities, few replies were of an over-optimistic kind. One of the three who hoped to move to a University mentioned the possibility of a Chair; and as one former member of the Department was now a Professor and another likely to be soon, this was not perhaps wholly a pipe-dream. The Inspectorate and Advisory services were mentioned twice. This is a line of advancement that might well suggest itself to a lecturer in this recruitment group, who might have to wait some time for promotion, as an interesting alternative. Three others considered that to spend the whole of their remaining career in the same College was an uninviting prospect, and thought that after a few years they would deliberately move. This again is not an uncommon attitude in teachers. However the rest of the group were content to do the job they enjoyed and benefit from steady promotion with the hope of a Headship of Department as the ultimate achievement. It is natural enough that

having recently made a satisfactory move many amongst this group should not yet be devoting a great deal of thought to the next step. Those still under thirty-five would probably not have taken sufficient stock of the job to have made a firm decision about the relative merits of alternatives in the future, whilst those over fifty would be likely to be influenced by the attractions of a favoured geographical area. Few start low down the lecturer scale of salary since previous experience is taken into account, and with the prospect of promotion to the career grade, attractive alternatives are relatively few; this point was taken by a still quite young lecturer who remarked that once in the career grade

> "You have priced yourself out of the market".

Only those with highly personal ambitions such as a special concern for particular methods of teaching or a definite area of research which they felt another type of post might favour are likely to have career intentions outside College. Such people were relatively few.

I concluded the interview with a major open ended question asking respondents whether they were satisfied the College was doing the right job. I tried to signal by the manner of introducing it that this was a more important question, calling for general evaluative judgement coming at the end of an hour of talk. Though it could hardly be a considered judgement, it was one to which at some points in the preceding discussion the

respondent's mind might well have been turned. Whilst it is to be expected that in any large educational enterprise different people will have different priorities and emphases, Colleges of Education in present conditions are especially vulnerable to conflicting pressures. The College is responsible to the D.E.S. and the Inspectorate in respect of financial and overall policy; to the Church through its representation on the Governing Body and through the Council of Church Colleges; to the University Faculty of Education in respect of the B.Ed. degree and to the Area Training Organisation (also a University Body) in respect of the Certificate; the views of the teaching profession, and because of teaching practice, those of the local organisations particularly, and the demands of students are also important.

"These multiple and conflicting demands," the A.T.C.D.E. wrote in 1970,

> "ensure that some degree of dissatisfaction with the work of the Colleges must exist somewhere.... No other sector of higher education is as exposed to multiple demands as the Colleges."

This dissatisfaction which at the time of the interviews found expression in the Parliamentary Committee on Science and Education and the enquiry into the effectiveness of College courses set on foot by the Secretary of State and carried out under the aegis of the A.T.O's, and finally in frequent comments in the educational press, was

to some extent reflected in the comments of the respondents. Nine were content to say "yes" with only such qualifying phrases as "within the limits of space and finance" or "as far as conditions allow". Of these two were in quadrant C, seven in the other quadrants. The reasons given by the other twenty-one respondents for not being able to express satisfaction referred to two broad and related areas, the courses and organisation of the College and relationships with schools. The latter is partly a matter of personal initiatives on the part of staff, but very largely a matter of the limitations imposed on tutors and students by the internal timetable of the College. It is almost impossible to get a working group of students together for long enough to make a visit to a school worthwhile, without major interference in the sequence of academic instruction for the students concerned. Hence it does not seem to be forcing the evidence to say that the most general underlying reasons for the feeling that the College is not wholly doing the right job are organisational. Several respondents referred directly to the complexity and conflicting purposes of the College, though the fullest expression of this was in fact made during one of the pilot interviews by a lecturer who had worked in higher education in Canada and was leaving to return there. After working for two years in the College, he told me a few months before the interviews proper began,

> "The striking thing to me about the

> College, as one cog in it, is its complexity. It is far worse than the University I was at which had 10,000 students, a very old established University with all sorts of ramifications. This is a straight organisational thing. For example it is complicated between Departments, and in my own Department it is extremely complicated. The number of courses we offer, the number of groups of students going through - the mature students, the advanced and the not so advanced, the B.Ed., the advanced group and the not-so-advanced group of the advanced group, and every way I turn..... In fact now - I've been here eighteen months - I'm still not competent to comment on some parts of the course. And it's not through lack of trying, because I generally try to grapple with it."

In such a situation it is not surprising to record remarks such as

> "subjects operate independently of one another and this reinforces the (students') grammar school subject-mindedness."

or that

> "there is a need to reconcile the autonomous structure of the departments with the

reconciliation (sic) of student needs -
to integrate more."

One of the most experienced and well qualified lecturers said,

"The lead from society is not clear enough. Too much subject and not enough children."

and another experienced teacher and ex-student of the College said,

"St. Luke's is better than most, but Colleges need a big organisational change."

Yet another who had worked in close collaboration with a different College of Education outpost referred to the interim condition of the Colleges as institutions within the higher education sector adding that there is "no fundamental thinking" about their aims and organisation. Less experienced lecturers said

"I find it hard to know what the job is."

"It depends on how far I understand the object of the exercise" (i.e. what the College is for).

and

"The aim is a tremendously difficult one."

A number of possible lines of solution were advanced to the problem, which a lecturer with twenty years of teaching and some industrial experience behind him, characterised as "how to reconcile the functions of a sub-university with those of professional training".

These included the suggestion that at any rate intending Primary teachers and their specialist staff should be hived off, to the view, akin to the Liberal Arts College idea, that a broad and unspecialised course over several subjects should be instituted for all students, and to a number of proposals for subject integration.

Another line of approach stressed that the existing organisation threw together on the same course a wide range of ages, prior experience and previous level of academic attainment among the students. Thus one lecturer spoke of

> "the juggling between courses, and the enormous spread of background"

another that the courses in his Department were too narrow and a finer grading of students was necessary. There is the nagging problem of balance between the immediate aim, emphasised by the profession, of producing a teacher who can cope with teaching practice and on entry into the profession be at once effective, and the longer term responsibility of trying to produce a teacher prepared to adapt to the changing conditions which may be expected in his working lifetime. At the extremes noticed, the practitioner frame of reference tended to issue in a preference for a general course with a strong professional element directly related to classroom skills, whilst the academic frame of reference expressed itself in the idea of specialisation of effort, the student receiving "two coats of paint"; one from the academic subject

teaching, one from the professional and Education courses.

Finally there was the perennial problem of lack of contact with the schools; the view that the College would not be doing the right job until there was enough well organised and effective teaching practice, or better still, effective professional contact with children in realistic situations. The overlap of this with organisation and courses was brought out by the lecturer who said,

> "The most valuable part of the work is the kind of triangle: student - teacher - children. There is far too much lecturing without children around, but I don't see any solution to it."

The lecturer who was about to return to teaching had come to much the same conclusion; he was disappointed with the College role which was neither properly academic, nor effective for teaching situations, as it seemed to him.

These responses are of general import for the investigation and are noted for the present without comment.

At the close of the interview I asked respondents to finish two incomplete sentences concerning their professional problems and the problems they perceived their departments to be facing, in the hope that fairly specific areas would be indicated. Results are tabulated below.

Table 13: Responses to the sentence completion "My main problems are with....."

Category of response	Number
Teaching aspects	10
Weak students	3
Departmental organisation	5
Improving own qualifications	3
Miscellaneous personal	3
No problems	6
Total	30

Table 14: Response to the sentence completion "The main problems facing my Department are with...."

Category of response	Number
Lack of adequate staff and/or facilities	9
Content of courses	8
Administrative/organisational	5
College/department relationships	3
Students' abilities	2
General ("College is too big")	2
No problems	1
Total	30

What is significantly absent is any mention of problems of personal relationships, jealousies or rivalries. The problems whether seen from the personal standpoint or

the Departmental one, are overwhelmingly those which stem from trying to provide a wide variety of learning experiences to a complex pattern of groups of students of a wide range of experience, abilities and aptitudes, and in somewhat limited facilities. Though there are indications of inadequacies in communication and in the coordination of work, none of the responses points to conflict or deep divisions. It is not surprising that given the range of demands made by outside bodies there is uncertainty as to the right allocation of efforts, and uncertainty about priorities; nor that the success of departmental organisation is rather varied, given the rapid pace of expansion and the diversity in interests and experience of Departmental Heads.

In this chapter I have described the results of interviewing a recent recruitment cohort of junior staff. Within a generally privatised relationship to the work, that is, seeking mainly personal goals, the satisfactions of the job itself and the esteem of immediate colleagues, this cohort of staff exhibits in the extreme cases two contrasting modes of involvement, the mission type which is accompanied by a strongly professional ideology and a preference for working closely with practicing teachers and in schools, and an academic involvement, accompanied by a strong identification with the subject discipline

and preference for specialist and advanced work. There is little differentiation of aspiration, since broadly speaking, date of entry to College is the main determinant of internal promotion, and few leave. There is no "go-getting" junior group pressing for advancement. Similarly the work group is uniform in respect of the way skills are evaluated; differentials do not have to be emphasised or kept up as they might be between, say, operatives and clerks. Hence an analysis in terms of conflict is unpromising. We shall see later that other, subtler modes of interaction are more significant.

Growth and differentiation has resulted in a functionally specialised departmental structure. Because there is no formal induction process new members are relatively isolated in their departments; they rely largely on the interpretations of the Head of Department, initially at least, in working out the role expectations they have of one another in the work area. They almost never have a chance to work closely with and evaluate colleagues outside their own department. Staff roles and the functions of others departments in the total course offered to students are unclear and vulnerable to misunderstanding. Further, according to departmental recruitment policy, in which there is considerable autonomy, and within the elbow room allowed by department size both the academic and the practitioner frame of reference may be represented within a single department. Task and frame of reference tend to be mutually self-selecting

so that major departments with responsibility for the professional courses (English, Mathematics) may include fairly extreme cases in both frames. One group operates mainly on the main course and B.Ed. level, the other on the professional level. Tensions are likely in such a situation and machinery for tension resolution essential. To some degree there is a possibility of power centres at crucual times to be cross departmental, i.e. frame based, not departmentbased. These are areas to be explored in the following chapters.

Ultimately what is at issue is how identity (what a man is) affects role (the set of behavioural expectations attached to a position in the College structure) (Cotgrove and Box 1970). I have stressed the important area of professional identity. As a result of a lengthy process of professional education and anticipatory socialisation, followed in almost all cases by work as a school teacher, new recruits arrive with a well formed professional identity manifest in values, preferences, allegiences, expectations, beliefs, skills, and knowledge states. The role of lecturer is not a total role, but is only one, presumably the salient one, of a cluster of roles. The many different sets of characteristics present amongst the new staff influence their role performance and differentiate them. The organisational pressures exerted upon the position they take up in the structure may act to accentuate or to reduce differentiation. By examining the sub-units I shall seek to throw light on this. But

the descretional element in the role is so considerable that a very wide variety of performance styles is perfectly compatible with the smooth running of the enterprise as a whole, so that probably only in the extreme cases does tension between individual identity and role expectations create problems for the individual which emerge to the observer's view. Where the tensions do become significant is in the political system of the College, in decision making.

Fig. 15 **A cluster hypothesis**

Respondent Code No.	Quadrant C	U.D.E. or none	Under 30	Selective school only	Dismissive of students	Subject identified	Not Primary orientated	Invited or Ad. Course
2	◆	◆	◆	◆	◆		◆	
8	◆	◆	◆	◆	◆		◆	
6	◆	◆	◆	◆	◆	◆	◆	
9	◆	◆	◆	◆			BLUE	◆
11			◆	◆		◆	◆	◆
18	◆	◆	◆	◆			◆	
20	◆	◆	◆	◆			◆	
21	◆	◆	◆		◆			
24	◆	◆	◆	◆		◆	◆	
25	◆	◆	◆	◆			◆	
26	◆	◆	◆	◆	◆	◆	mgs.	
27	◆	◆	◆	◆			◆	
28		◆			◆	◆	◆	
7	◆	◆	◆	◆	◆	◆	◆	

Respondent Code No.	Quadrants A,B, or D	College Trained	Over 30	Non-selective school	Accepting of students	Generalist Orientation	Accept Primary	Invited or Ad. Course
3	◆	◆		◆	◆	◆	◆	◆
4	◆	◆	◆	◆	◆	◆	◆	◆
5	◆	◆	◆	◆	◆	◆	◆	◆
10	◆	◆	◆	◆	◆	◆	◆	◆
12	◆	◆	◆	◆	◆	◆	◆	◆
13	◆		◆	◆		◆		◆
14		◆			◆			
15	◆	◆	◆	◆	◆	◆	◆	◆
16	◆	◆	◆	◆	◆	◆		
17		◆		◆	◆	◆	BLUE	
19	◆	◆	◆	◆	◆	◆		◆
22		◆	◆	◆			◆	
25	◆	◆	◆	◆	◆	◆	◆	◆
29	◆	◆	◆		◆		◆	◆
30	◆	◆	◆	◆		◆	◆	
1	◆	◆		(n.a.)		◆	◆	◆

CHAPTER FOUR

I now turn to the study of the main group of respondents, the established staff who had longer than two years service in the College. I present first the results of the statistical-factorial technique by which an attempt was made to discover empirically data on the range of perceptions and judgements of their common task and situation currently held by the established staff members, and the groupings into which the staff fall on this basis. Such groupings were likely to be significant for any study of decision making within the enterprise.

Each consenting member of staff in this cohort was interviewed with a fuller schedule of questions revised in the light of the results gained from the interviews with the newly-appointed staff cohort. (Appendix A). Whilst there was still some concern with member's perceptions of their role, this was made a preliminary to an attempt to explore their perceptions and judgements about the task, the organisation of the sub-units (usually departments) in which they worked, the relationship of these sub-units to the sector of the academic world which constituted their respective special sub-environments, and their relation to the total pattern of College organisation. The Osgood-type instrument which was devised to sample judgements on areas parallel to those raised in the interview was presented at the end of the interview. Respondents were told how the results would be processed and the Osgood

technique was explained; they were not told that the instrument was designed to tap areas similar to those in the interview, but by a different route.

The main staff cohort was similar in many external respects to the junior cohort, which suggests that there is considerable continuity in recruitment policy over the years. Heads of department interview and select their own staff in consultation with the Principal, and, since the institution of the B.Ed. degree, with some slight and formal consultation with the appropriate department of the University. When I asked both Heads of department and departmental members during the individual interviews, "What are the most important considerations in choosing a new member of staff?" there was regular reference to the requirement that a new staff member should fit in, that his ideas and values should be in harmony with those prevailing in the department. A Head of a large department said;

> "A personality we have to live with. The too prickly best (i.e. candidate) would not get in; we have to avoid stresses and strains"

This clearly outweighed any functional requirement in nearly every case, and it was sometimes said that provided a new recruit was acceptable, the course could be modified to give scope in his particular interests.

It seemed reasonable therefore to suppose that a pattern of beliefs would exist amongst the main staff

cohort, similar to that shown by the junior cohort; modified perhaps by the fact that this more veteran group would have undergone longer exposure to job-specialisation in the smaller College as it had been when they were recruited (over the period 1932 - 1968 but predominantly in the late 'fifties and 'sixties). When I asked during the interviews, "Has your general outlook about teaching and education changed much as a result of the experiences in College over the last few years?" most agreed that they had changed a good deal, but the replies gave no clear support to the view that there was a convergence towards a common outlook.

Warr (1971) has stressed the more specific the domain sampled by the Semantic Differential, the less it resembles a standard test and the less Osgood's major dimensions of evaluation, potency and activity are to be regarded as stable. The selection of objects of judgement for the instrument used was determined by the purposes of the research. The main areas of the interview schedule were used. They were:

(a) Typical College Lecturer

(b) Study Practice

(c) College of Education Student

(d) Academic Board

(e) Teaching Methods We Use

(f) College

(g) The B.Ed. Degree

(h) Teaching Practice Supervision.

For each object of judgement ten seven-point scales were chosen based on Osgood's published lists and in the light of Warr's recommendations. It should be stressed that I used this Osgood-type instrument for the very limited purpose of providing a numerical measure of differences amongst a group of relatively homogeneous respondents. I was not concerned, as must users are, with the factorial composition of judgements in general. Clearly this investigation was mainly concerned with the evaluative dimension. Triandis (1960) has stressed that in such limited domains idiosyncratic factors may arise alongside Osgood's three that I have mentioned, and may conceivably outweigh them. Until more is known, too, about concept-scale interaction the investigator can only use his best judgement. I am aware that once expectations have arisen in the investigator's mind, unbiased selection of scales is not easy. It would be desirable for interviewing and scale construction to be carried out independently; but as this work was carried out entirely without outside financial support, this possibility was not open to me.

A number of writers have set out the basic aspects of cluster analysis (Sokal and Sneath 1963, Mather 1969, Tryon 1970, Entwistle and Brennan 1971) so that a brief outline of the technique will suffice. The quantitative variable which is the basis of the numerical methods used in this investigation is the scored response to the 80 scales of the Semantic Differential instrument. Scores

on each scale may range from one to seven; these provide the basis for the calculation of similarity coefficients amongst the respondents. More refined techniques, in this case cluster analysis, can then be used to investigate the pattern of relationships amongst the respondents as shown by their responses to the instrument.

Fifty-seven completed and usable replies were received from the sixty-six respondents interviewed. A matrix of 57 x 80 scores was factor analysed and the results further subjected to cluster analysis (Ivimey-Cook 1972) to determine groupings amongst respondents based on factor specifications. Scores may be used to obtain either a correlation coefficient or a measure of taxonomic distance. Distance may be calculated as the distance between two individuals in a Euclidian hyperspace generated by treating the variables from the instrument as a set of Cartesian coordinates, the lengths of the axes being standardised, that is, reduced to zero mean and unit variance. To ensure that the coordinate axes are at right angles so that the characteristics which they represent are uncorrelated either Principal Component Analysis or partial R-mode analysis may be used (Mather 1969). In the present case Principal Components Analysis of a product-moment correlation matrix was used. This technique investigates the relationship between a multidimensional array of variables some of which may be correlated, and hence at least partially redundant. The points representing the variables form a roughly hyper-ellipsoidal swarm and the method extracts a set of orthogonal

and hence uncorrelated components, the principal axes of the hyperellipsoid. The first few components account for much of the variance and they are extracted in descending order of magnitude. Twenty-two components were extracted, the first ten of which were retained by the programme. Each component has associated with it a vector (the eigenvector) giving the relationship between each variable and the component. These are termed the component loadings. If the vector of the component loadings is used to post-multiply the standardised data matrix the component specifications are obtained, and the distribution of respondents can be plotted on the component axes. Distance matrices can then be calculated which, when analysed provide the final clusters. The similarity coefficient which is represented by the vertical scale in the dendrogram is the unit of distance in the ten-dimensional hyperspace.

In the programme employed all individuals were treatdd as equivalent (the weighted method) and the constitution of a cluster was confined to a pair of individuals (Pair-group method). The pair-group method of cluster analysis involves the detection of that pair of individuals which are mutually closest together. This result is recorded and a revised data matrix is calculated treating the cluster as an individual. There are a number of other solutions to the problem of clustering. The object of cluster analysis is to simplify the interpretation of the results of Principal Components Analysis. The results can

be exhibited in a dendrogram as in Fig. 6 in an easily assimilable form. The pair-group method has certain shortcomings and the Variable-group method exists to meet this difficulty. However the computer programming required is much more elaborate and could not be employed in this investigation.

Results

For the purposes of this investigation and in such a limited domain, large general factors are of interest and value whilst small specifics which are very difficult to identify with any confidence do not help in the task of interpreting what mainly discriminates amongst a group of relatively homogeneous respondents. What we really want to know is the nature of the general factor and whether any unforeseen specific factors turn up. Moreover it should be emphasised that the factors in themselves were of secondary interest in this investigation; what did matter were the clusters which finally emerged. A graphical plot brings out clearly that the distribution of component specifications is fan-shaped, factor 1 having a wide and factor 10 a narrow spread about the mean. This is evident, too, in the sample collinearity profiles (Figs. 7, 8 and 9) in which after initial swings the lines converge towards the right, factor 10.

Factor 1 accounts for 20.58% of the variance. On this factor 54 of the 80 variables have a loading greater than .35 (the 1% significance level) and 66 greater than

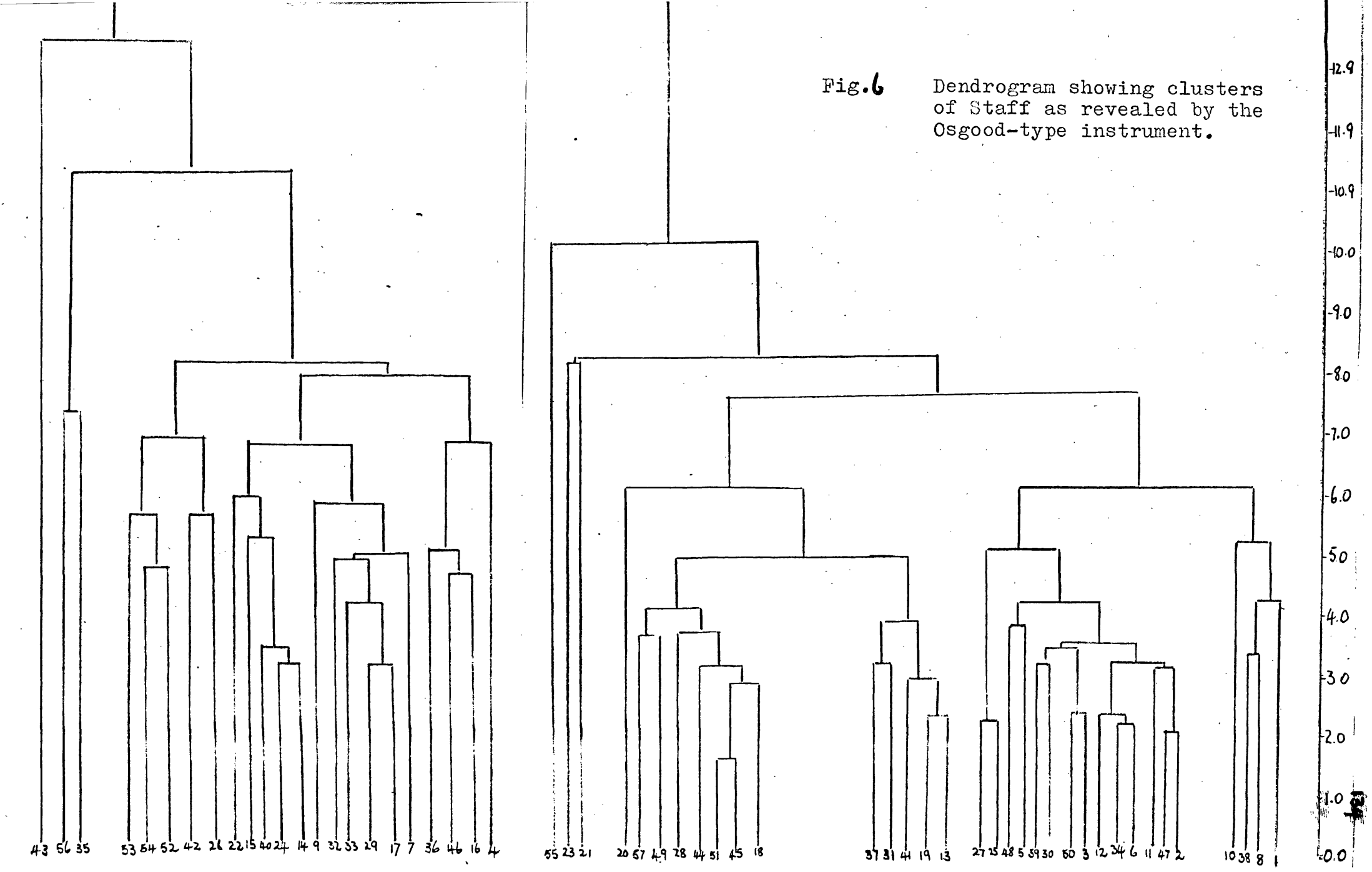


Fig.6 Dendrogram showing clusters of Staff as revealed by the Osgood-type instrument.

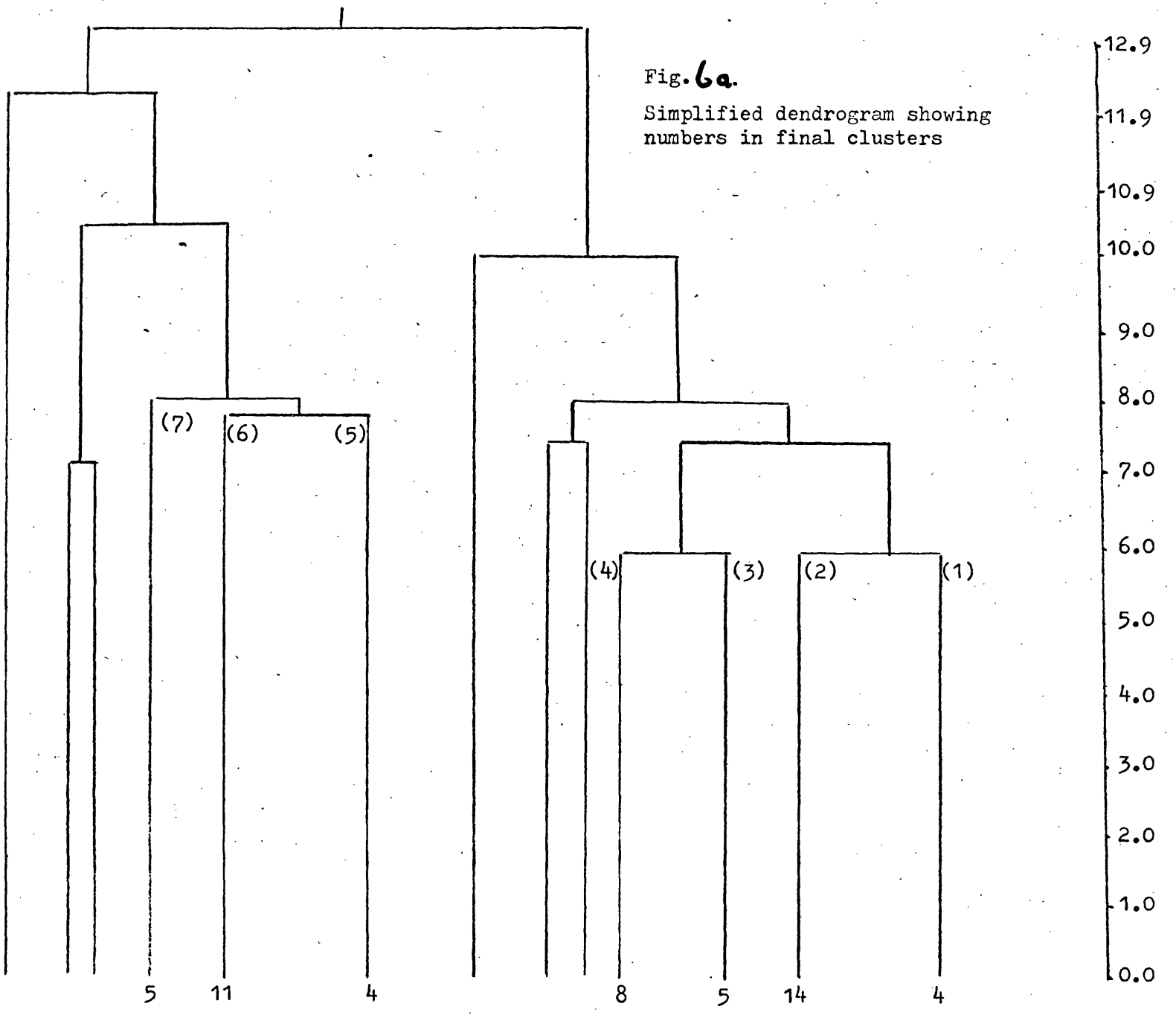


Fig. 6a.

Simplified dendrogram showing numbers in final clusters

Table 16. Principal Components analysis; Component specification

COMPONENT		1	2	3	4	5
01	1	-25.039	-1.644	0.645	0.626	-4.189
02	2	-14.119	-2.081	1.878	-4.915	1.589
03	3	-17.829	-4.163	0.556	0.123	5.173
04	4	8.634	0.023	14.519	8.117	-4.449
05	5	-17.291	-5.332	-3.010	4.827	-1.494
06	6	-12.745	1.239	2.447	5.081	0.929
07	7	13.109	-0.044	4.865	5.445	6.848
08	8	-27.776	5.103	-1.594	0.014	-2.973
09	9	13.173	-5.939	-4.840	3.100	-1.309
10	10	-21.291	3.838	5.095	-7.194	0.518
11	11	-11.660	-3.579	1.980	2.403	2.165
12	12	-13.203	-1.576	-0.451	2.827	-2.262
13	13	-2.634	2.254	2.851	3.472	1.892
14	14	5.744	8.263	-0.123	-0.309	-0.326
15	15	3.882	2.158	-5.208	-2.360	8.663
16	16	18.623	5.263	1.898	-0.451	-1.024
17	17	7.981	-5.978	-2.010	1.591	3.086
18	18	-6.361	-0.260	-2.020	4.124	-1.624
19	19	-1.451	3.797	3.467	-0.981	-1.984
20	20	-6.105	2.701	8.303	-0.837	8.765
21	21	-5.473	-3.274	-6.266	-5.509	-5.961
22	22	12.883	5.396	-4.374	1.310	9.864
23	23	-0.974	-17.061	0.917	-1.472	-2.239
24	24	7.345	4.307	-2.045	0.303	-1.762
25	25	-13.579	-1.169	-7.351	-2.028	-2.861
26	26	26.158	-1.930	2.396	6.038	-1.116
27	27	-12.953	0.117	-10.718	-3.881	-0.639
28	28	-2.518	-8.254	-1.332	3.816	-2.328
29	29	7.872	-3.244	-6.276	1.531	0.549
30	30	-17.463	2.445	0.225	1.601	4.802
31	31	-8.179	7.115	7.246	0.284	2.303
32	32	8.018	-1.982	4.722	8.067	-2.444
33	33	13.597	-3.197	0.804	3.707	0.721
34	34	-11.358	-2.677	0.484	3.666	-0.380
35	35	42.281	10.651	3.860	-1.124	-0.765
36	36	12.620	-0.030	6.816	-1.405	-8.488
37	37	-5.380	1.384	7.714	6.151	1.359
38	38	-36.139	1.871	0.211	-2.365	-1.427
39	39	-16.424	4.866	-1.952	3.394	-2.987
40	40	6.721	4.666	-3.593	-2.370	3.001
41	41	-1.932	7.910	5.305	0.013	-0.172
42	42	16.637	-2.831	-4.086	7.343	-3.378
43	43	14.361	-13.824	16.322	-18.483	0.770
44	44	-6.751	0.576	-0.761	-1.097	-3.556
45	45	-1.768	-2.418	-2.034	0.579	0.720
46	46	14.922	6.618	0.724	-4.112	-6.207
47	47	-15.398	0.937	-1.095	-2.383	-1.029
48	48	-12.295	-4.756	-4.152	-2.487	3.731
49	49	-1.350	-5.288	0.160	-3.576	-1.356
50	50	-20.704	-0.261	-1.675	-1.058	1.854
51	51	-1.198	-1.626	-4.367	0.615	1.049
52	52	18.663	-7.603	-6.448	-1.334	0.754
53	53	32.165	-1.898	-5.912	-1.918	1.683
54	54	20.920	-0.083	-3.060	-7.539	0.080
55	55	-1.779	20.947	-4.438	-6.257	-3.455
56	56	44.289	-0.169	-6.391	-1.038	-0.997
57	57	0.517	-0.275	1.173	-1.685	2.316

6	7	8	9	10
-1.707	-6.629	-0.737	2.463	4.061
-2.049	-0.041	0.394	-1.439	-1.516
1.160	0.139	1.182	-1.039	-1.944
3.705	-2.324	-2.349	0.475	3.669
-6.899	1.283	-4.109	-0.197	1.456
-0.175	1.306	-0.726	1.904	-0.142
-4.116	-0.956	2.165	0.095	-1.445
2.236	-3.517	0.474	0.830	-4.377
-6.895	-7.823	-1.203	1.273	0.425
-5.294	-0.164	-1.715	-1.851	-0.451
-2.970	2.914	2.134	-1.401	-2.851
-1.069	0.182	-4.502	3.067	1.177
1.518	-1.213	-0.846	-0.584	-0.213
-0.798	1.492	-2.465	-2.733	-1.482
5.302	3.104	2.010	-4.395	3.097
1.338	1.461	-3.074	0.818	1.184
0.750	1.079	0.158	-1.416	0.151
2.822	-0.265	1.766	1.311	-1.875
-1.618	-0.515	0.992	-1.454	-0.444
-1.272	7.770	-3.583	6.041	5.283
-4.646	8.451	9.511	3.334	4.390
-4.035	-5.498	0.220	-0.425	3.844
-4.300	4.892	-4.012	-4.061	1.981
1.274	-0.866	-0.122	0.714	-1.364
4.214	2.074	-4.109	2.247	-0.031
0.914	3.478	0.582	-3.779	-0.638
7.003	1.604	-3.149	-0.881	3.179
5.068	0.804	3.200	2.574	-1.305
-1.216	0.661	-0.112	0.413	0.434
0.149	-2.520	4.245	2.253	0.874
3.941	0.667	3.199	2.616	0.252
-1.564	1.466	-0.551	-2.691	-2.586
1.044	-1.094	-3.362	2.378	0.340
-1.735	-0.307	2.798	1.183	1.974
-7.113	0.440	4.831	0.602	0.100
3.293	1.313	-0.241	0.989	1.996
3.527	3.487	0.467	0.824	-0.546
-0.037	-2.591	3.018	1.447	-1.083
0.101	-2.815	0.394	0.140	-1.372
2.070	-2.507	-2.917	-1.925	0.390
2.477	0.914	-1.024	-4.471	-2.902
3.984	-1.300	5.859	-6.257	2.729
3.509	-2.989	1.023	0.600	-2.187
-1.406	2.123	1.794	0.864	-0.454
0.656	0.681	-0.331	0.401	-0.022
-5.352	-1.628	-2.582	-0.781	2.298
-2.801	-1.618	0.501	-1.346	-1.828
-7.604	2.740	-1.123	-1.382	-2.631
0.186	-0.705	-1.199	-6.563	1.060
5.102	1.198	-0.535	-0.603	-3.074
1.870	-1.006	0.423	2.263	-1.474
3.396	-0.628	0.740	0.249	-1.128
4.216	-2.424	-2.652	3.112	1.366
2.398	-3.780	2.163	0.731	3.428
-0.050	3.746	-1.580	-2.108	0.231
-1.680	3.302	-1.544	5.824	-8.679
-0.820	-6.046	0.210	-0.254	-1.326

VARIABLES			% Variance Total	1 20.58		2 7.19 27.76		3 6.33 34.09		4 5.53 39.62		5 4.43 44.04		6 4.34 48.38		7 3.75 52.13		8 3.53 55.46		9 3.13 58.59		10 3.02 61.61	
				P/C	V	P/C	V	P/C	V	P/C	V	P/C	V	P/C	V	P/C	V	P/C	V	P/C	V	P/C	V
Typical Coll. Lecturer	Progressive-Traditional	1		-56	-35	18	37	34	31	-06	-15	05	13	17	15	21	-01	-22	38	-05	-16	08	-07
	Active-Passive	2		-23	-39	-10	20	36	32	13	16	-10	-36	-06	09	-36	12	05	-10	-37	-19	-31	-27
	Successful-Unsuccessful	3		-56	-36	28	50	08	08	12	00	02	06	09	05	24	-09	-10	31	01	-03	03	-05
	Strong-Weak	4		-36	-59	11	-11	-02	01	-02	-08	-13	-51	07	-15	-27	11	26	01	-55	-02	-32	-20
	Flexible-Rigid	5		-50	-52	16	26	-04	-12	28	11	-32	-46	14	11	-01	11	19	16	-30	06	-20	-14
	Lenient-Severe	6		31	19	11	-08	-21	-21	-25	-34	-16	-17	06	-13	11	09	09	-13	-11	19	-29	-23
	Believing-Sceptical	7		-34	-22	-04	13	06	12	05	16	27	27	03	-10	24	03	25	36	09	20	41	37
	Free-Constrained	8		-32	-19	51	53	-15	-04	11	01	05	-13	-15	-37	29	-09	10	21	-13	11	05	-02
	Influential-Uninfluential	9		-39	-31	-02	15	26	32	-04	11	18	15	-06	-15	34	25	45	32	-05	36	18	16
	Autonomous-Directed	10		-27	-11	19	31	58	61	-04	07	-03	-07	-19	-13	31	31	29	27	-15	17	22	11
Study Practice	Good-Bad	11		-55	-41	12	40	51	55	05	12	-07	06	-25	16	00	09	-16	-11	+06	-14	-31	-35
	Strohg-Weak	12		-52	-39	12	27	47	53	-23	-13	07	12	-18	-06	01	14	-20	09	-15	-30	03	-07
	Positive-Passive	13		-65	-53	-03	23	38	35	-10	-06	-11	07	04	25	-05	15	-12	09	-03	-20	-01	-02
	Interesting-Boring	14		-62	-45	28	50	24	34	12	22	00	-09	-39	-28	08	16	02	14	-26	-20	18	08
	Unorthodox-Orthodox	15		-14	-31	-21	45	51	51	02	13	20	-18	20	09	-31	07	32	25	-30	01	18	20
	Deep-Shallow	16		-56	-43	-14	16	45	41	-06	03	04	27	-04	30	-12	03	-35	-01	10	-36	-08	14
	Valuable-Worthless	17		-57	-49	13	36	47	51	-08	05	-03	10	-29	05	-01	11	02	-21	10	03	-36	-30
	Successful-Unsuccessful	18		-62	-52	17	33	42	54	-21	-05	-03	03	-29	-06	-16	12	01	-13	-03	-18	07	12
	Attractive-Distasteful	19		-63	-46	33	55	17	24	39	41	12	00	-30	-09	-01	-20	00	01	09	-03	-09	-12
	Intelligible-Unintell.	20		-51	-36	28	48	26	41	-07	08	05	17	-35	-09	-01	-04	14	-21	29	12	04	12
College of Ed. Student	Strong-Weak	21		-69	-49	18	40	01	04	-01	-10	14	23	17	07	14	-15	-26	34	02	-21	12	-02
	Believing-Sceptical	22		01	00	14	15	-40	-39	10	02	-13	26	-12	-35	22	17	06	13	-38	-01	-05	-11
	Progressive-Traditional	23		-38	-37	08	01	33	33	-03	-09	18	03	17	13	-21	-20	-29	17	-13	-34	-05	17
	Relaxed-Tense	24		+02	02	47	30	-33	-21	20	11	-04	-03	-16	-40	05	-15	27	02	-13	19	12	16
	Sophisticated-Naive	25		-42	-27	16	24	-10	-05	09	01	35	27	05	-13	09	-30	-44	31	-07	38	07	-10
	Happy-Sad	26		-28	-13	39	45	-16	-02	19	19	11	00	-29	-29	-02	-24	-07	-01	07	-13	25	22
	Successful-Unsuccessful	27		-52	-32	21	57	-27	-19	05	08	09	35	-15	-09	31	-10	08	00	38	25	-01	05
	Soft-Hard	28		-23	16	11	-17	08	09	-64	-55	-27	-05	00	-09	12	47	12	-09	-19	06	06	10
	Active-Passive	29		-49	-45	17	18	-06	02	01	-01	31	12	-03	-24	03	-17	-24	22	-23	-27	-10	-20
	Free-Constrained	30		-39	-34	40	25	-09	00	34	17	22	-12	11	-01	-31	-58	-22	12	00	-28	08	06
Academic Board	Strohg-Weak	31		-54	-54	-23	-04	-07	13	48	46	18	06	18	25	-23	-21	-06	22	-01	-18	05	05
	Influential-Uninfl.	32		-38	-34	05	09	-08	-10	35	25	-01	-19	20	15	-21	-18	04	25	-08	-14	32	33
	Flexible-Rigid	33		-60	-49	-23	29	-10	-20	29	33	-30	01	-10	27	02	26	02	-03	04	-07	-06	-01
	Good-Bad	34		-62	-54	-38	20	-04	-12	26	44	-16	14	-24	12	15	42	18	-01	-01	06	-10	-05
	Free-Constrained	35		-32	-25	-30	12	-17	-35	56	50	-13	04	05	33	07	05	09	09	08	-04	-18	-20
	Effective-Ineffective	36		-43	-45	-46	-09	-07	-21	43	49	-06	04	05	28	-04	19	12	08	-04	01	-13	-09
	Democratic-Not Democ.	37		-38	-33	-33	03	03	-14	49	48	-12	-08	09	26	14	24	15	28	-14	07	-05	-09
	Active-Passive	38		-51	-35	-26	25	-26	-35	24	27	-09	19	-05	08	26	25	-11	21	-06	-13	04	-03
	Valuable-Worthless	39		-58	-45	-27	30	-02	-13	48	55	-15	10	-18	21	16	24	09	03	08	05	-14	-14
	Attractive-Distasteful	40		-42	-29	-39	19	14	00	36	48	-23	19	-08	46	10	26	20	-07	36	21	-02	06

We Use	Fresh-Stale	43	-74	-64	-14	22	-08	-08	-08	-02	18	33	12	-02	34	17	08	37	-07	10	-05	-07
	Unorthodox-Orthodox	44	-24	-32	-11	-18	18	20	-22	-17	43	33	19	-06	19	-06	03	21	-04	18	-39	-41
	Easy-Difficult	45	19	37	-06	19	-06	-19	09	-01	20	04	-11	02	28	19	-59	15	-19	-49	06	-22
	Active-Passive	46	-53	-51	-27	09	-25	-25	-34	-24	12	51	05	02	27	19	-07	01	12	09	-33	-26
	Fair-Unfair	47	-59	-57	05	07	-31	-20	-12	-11	20	08	10	-20	-14	-10	-13	26	-27	-33	28	27
	Rigorous-Slack	48	-63	-61	-35	-07	-06	-10	-33	-26	01	30	32	21	11	27	07	28	-06	01	08	14
	Successful-Unsuccessful	49	-53	-51	15	23	-20	-15	-12	-18	13	12	17	-10	23	-04	16	22	-02	24	-17	-11
	Flexible-Rigid	50	-52	-59	14	03	-00	12	-27	-25	17	06	24	-03	-14	-14	29	11	03	19	08	25
College	Happy-Sad	51	-32	-29	63	47	-07	09	01	-10	-08	-29	-12	-19	-18	-32	11	-16	06	06	-02	10
	Relaxed-Tense	52	-18	-23	63	34	-24	-01	10	04	25	-12	-23	-40	-20	-53	07	-22	11	09	-15	-04
	Flexible-Rigid	53	-45	-38	30	33	-14	02	-08	-06	21	20	-10	-15	-06	-29	00	-11	24	05	-03	06
	Active-Passive	54	-39	-30	21	31	09	02	-22	-44	-21	-01	43	30	27	02	02	24	09	22	-19	-16
	Organized-Disorganized	55	-26	-32	12	09	-35	-34	25	11	10	-01	28	14	-10	-39	17	02	25	27	-16	00
	Successful-Unsuccess.	56	-39	-37	32	26	-03	-08	01	-30	-21	-24	59	34	06	-19	26	28	11	36	-02	11
	Strong-Weak	57	-34	-37	27	20	-32	-25	-21	-36	00	-03	28	-07	12	-13	19	12	02	28	-14	-01
	Progressive-Trad.	58	-50	-41	-20	06	-07	-10	-07	-08	10	39	34	37	-02	-13	-09	16	32	-01	15	22
	Easy-Difficult	59	15	15	23	07	-16	-09	13	09	07	-17	-03	-28	+13	-07	26	17	-09	21	24	22
	Run democr.-Not run dem.	60	-38	-48	-24	-27	-01	-11	39	29	22	-06	43	27	-23	-23	-01	36	-17	-11	-05	-06
B.ED.	Strong-Weak	61	-46	-42	-25	05	-44	-36	02	19	08	24	-23	-14	-20	05	-14	-10	-02	-34	24	30
Degree	Hard-Easy	62	-32	-24	-45	-11	32	21	-10	03	-19	13	08	36	-05	04	-03	13	-04	-20	28	25
	Fair-Unfair	63	-32	-46	20	05	-51	-34	-25	-24	09	-10	-14	-47	-14	05	02	-11	-33	-13	-16	-05
	Flexible-Rigid	64	-22	-23	-19	-11	-21	13	-05	08	43	46	-04	-14	03	-15	-11	04	11	-06	-04	-05
	Active-Passive	65	-11	-09	-22	-03	-29	-27	-37	-26	-02	26	-08	-17	20	31	-07	00	-09	-07	02	02
	Valuable-Worthless	66	-59	-68	-29	-09	-30	-16	-35	-09	07	24	-20	-20	-23	23	09	-19	-12	-17	07	24
	Attractive-Distasteful	67	-41	-52	-42	-15	-33	-19	-28	10	02	39	-44	-22	-25	24	12	-47	10	-07	-11	12
	Good-Bad	68	-53	-53	-27	11	-23	-12	-38	-08	01	41	-41	-17	-03	31	02	-39	11	-06	-20	-03
	Deep-Shallow	69	-49	-54	-52	-21	-28	-23	-09	17	13	31	-16	-07	-18	25	-01	-04	-13	-27	16	23
	Interesting-Boring	70	-55	-61	-29	01	-31	-26	-22	-03	-17	44	-20	03	-27	24	04	-36	03	-15	-10	12
Teaching	Easy-Hard	71	-01	18	-08	31	-22	-27	07	11	-39	-08	-30	-12	28	46	-14	+06	-19	-25	36	22
Practice	Kind-Cruel	72	-11	03	37	42	-31	-39	10	-18	-15	-12	13	-03	18	20	-36	16	-07	-20	-06	-16
Supervision	Happy-Sad	73	-42	-31	22	52	-15	-18	-03	-12	-50	-26	-16	00	15	29	00	-11	-13	-03	-17	-12
	Successful-Unsuccessful	74	-37	-31	47	42	-04	05	-18	-32	-35	-27	10	17	-31	-21	03	-21	19	-05	17	36
	Influential-Uninfl.	75	-38	-29	-13	21	-06	-05	-12	-01	-34	12	-08	34	-24	11	10	-35	41	02	20	42
	Active-Passive	76	-38	-17	-12	32	05	-14	-07	-23	-45	03	24	45	23	29	-35	18	00	-25	00	-09
	Fair-Unfair	77	-34	-40	-35	22	-25	-23	-01	-24	-38	-41	22	24	-48	-29	08	-26	04	-16	-11	10
	Strong-Weak	78	-34	-24	16	32	08	06	-23	-33	-31	-03	21	38	-06	-04	-04	-13	32	06	-02	12
	Valuable-Worthless	79	-54	-41	07	36	-08	-06	-24	-25	-42	-05	-04	21	-21	15	-20	-18	05	-33	19	28
	Pleasant-Unpleasant	80	-56	-44	05	32	05	-01	-09	-17	-49	-26	18	28	-04	29	+08	14	-13	-11	26	32

.26 (the 5% level). Highest loadings (-.77, -.74, -.72, -.63) occur in this area of Teaching Methods, followed by Study Practice (-.65, -.63, -.62, -.62); but at least half of the loadings in each of the other six area (Typical College Lecturer, College of Education Student, Academic Board, College, B.Ed. Degree, Teaching-practice Supervision) are significant at the 1% level. This factor may therefore be identified with confidence as the general evaluation factor which Osgood's work would lead us to expect. It is a measure of generalised satisfaction and approval of the College lecturer's role, methods and performance in teaching situations including work in schools, as well as of students, organisational support and the College as a community. It clearly separates the two frames of reference, particularly the extreme cases and is the outstanding discriminator on which the clusters are formed (Figure 10).

Factor 2 accounts for 7.19% of the variance. The highest loadings (1% level of significance = .35) are:

College	relaxed-tense	.63
	happy-sad	.63
College Student	relaxed-tense	.47
College Lecturer	free-constrained	.51
T/P Supervision	successful-unsuccessful	.47
Academic Board	effective-ineffective	-.46
B.Ed. Degree	deep-shallow	-.52
	hard-easy	-.45
	attractive-distasteful	-.42

This is not an easy specification to bring under one

name. It might be regarded as an effective factor distributing respondents over a free/happy/relaxed - constrained/sad/tense continuum. Four of the six unique cases shown on the dendrogram are extreme scorers on this factor.

Factor 3 is a specific Study-Practice factor which accounts for 6.33% of the variance. The specification is:

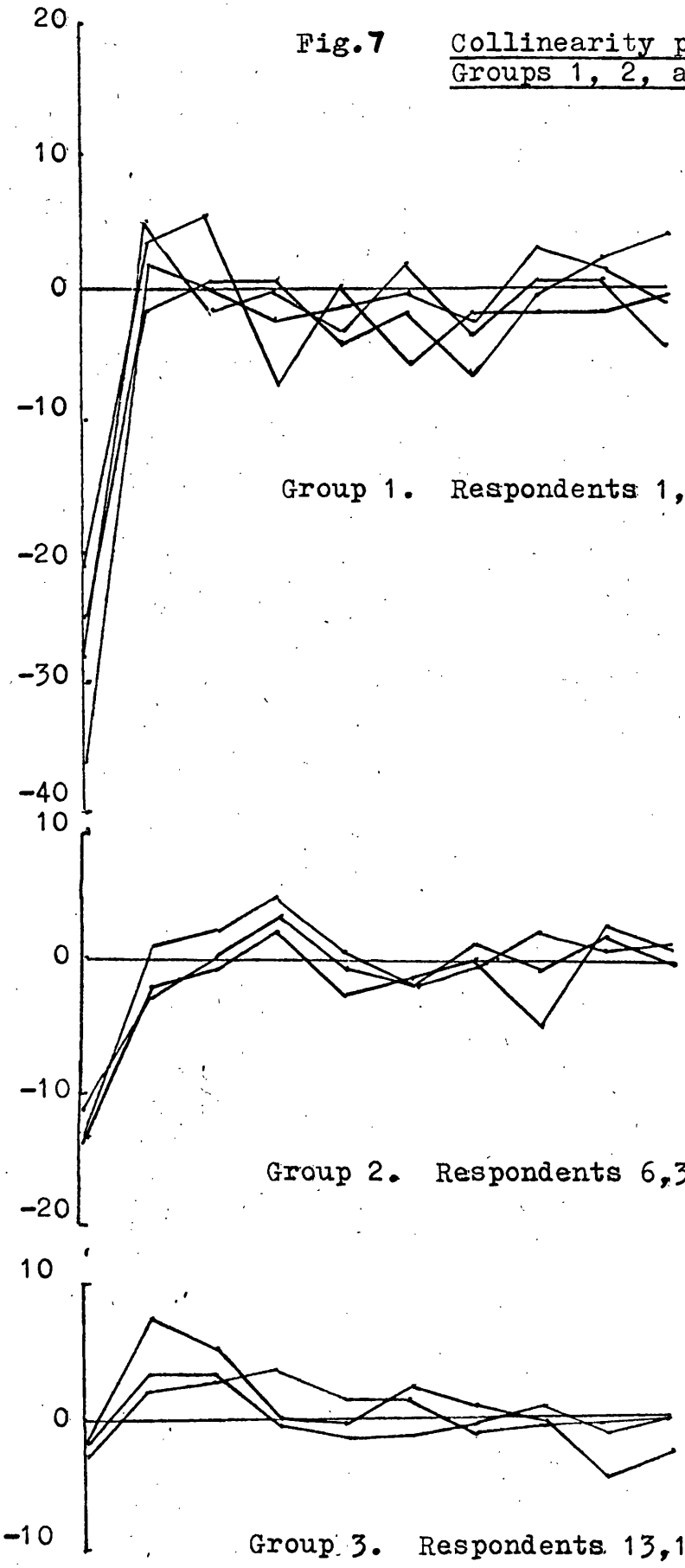
College Lecturer	autonomous-directed	.58
Study Practice	good-bad	.57
	orthodox-unorthodox	.51
	strong-weak	.47
	valuable-worthless	.47
	deep-shallow	.45
	successful-unsuccessful	.42

(Study-Practice is a group practice in which a tutor and about ten students take over a school class for one afternoon a week for two terms, for individual and micro-teaching, and child study.)

Factor 4 is an Academic Board specific factor accounting for 5.53% of the variance. The specification is:

Academic Board	free-constrained	.56
	democratic-not democratic	.49
	valuable-worthless	.48
	strong-weak	.48
	effective-ineffective	.43
	influential-uninfluential	.35
College	run democratically-not run democratically	.39

Fig.7 Collinearity profiles of Groups 1, 2, and 3.



Group 1. Respondents 1,8,38,10.

Group 2. Respondents 6,34,12.

Group 3. Respondents 13,19,41.

Fig. 8 Collinearity profiles of Groups 4, 5, 6, and 7.

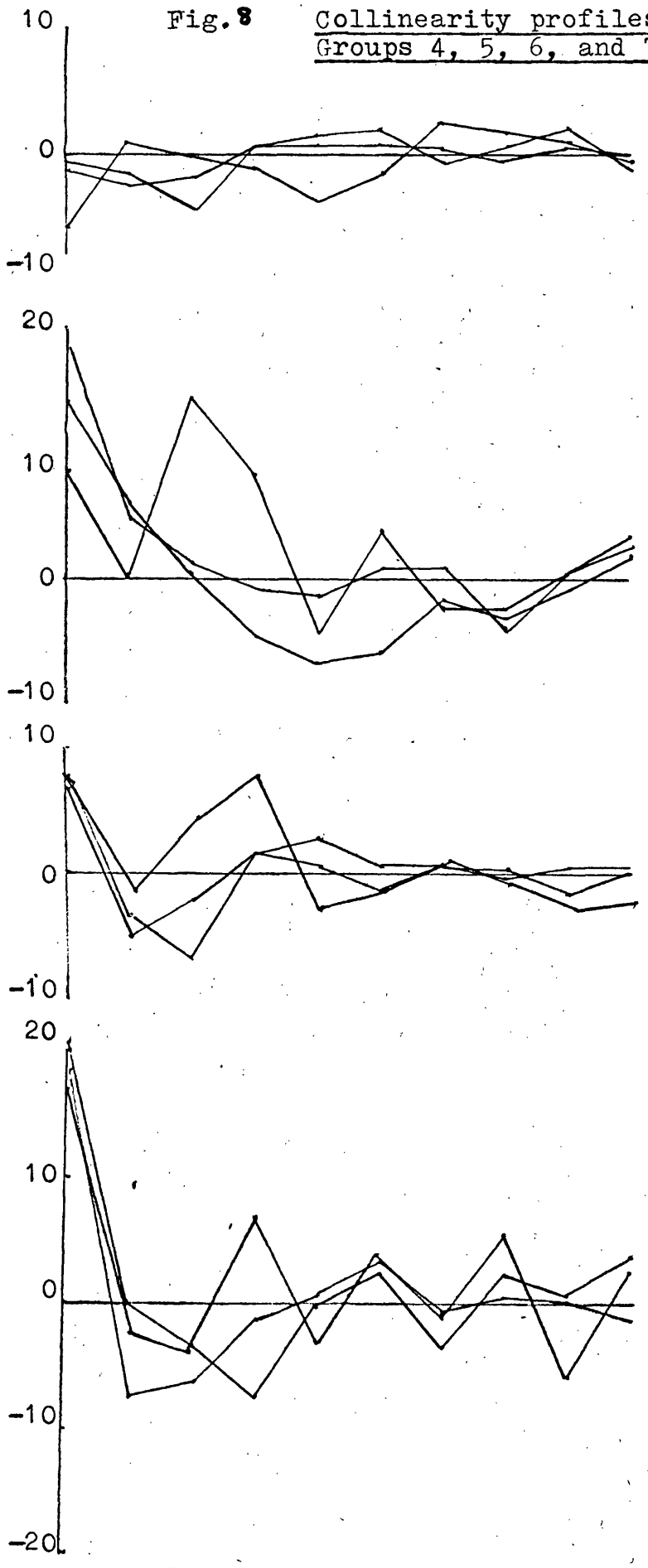
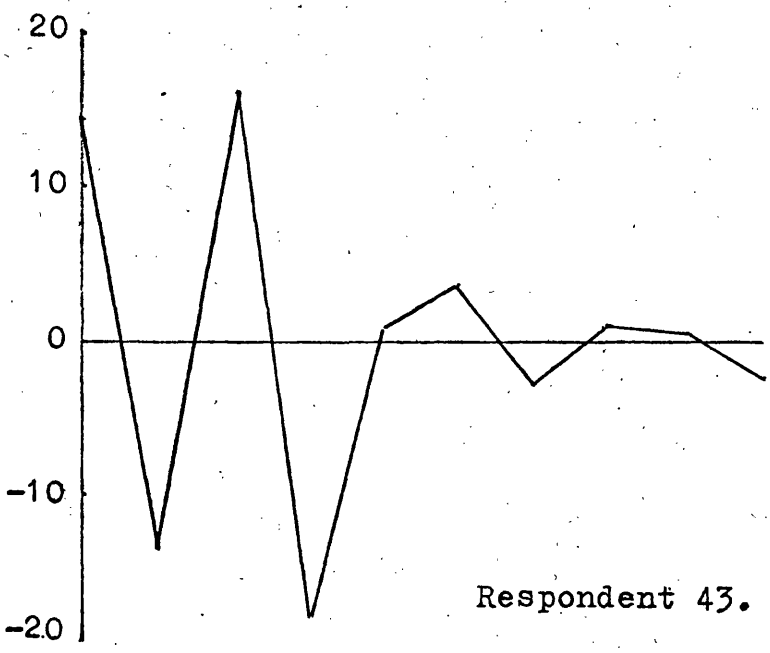
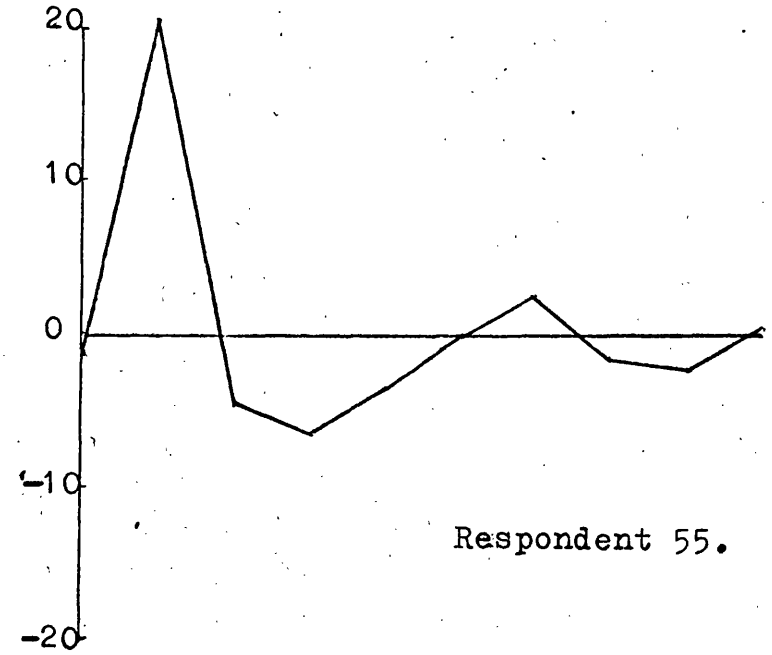


Fig.9 Unique cases.



Respondent 43.



Respondent 55.

Factor 5 is a teaching practice supervision specific factor accounting for 4.43% of the variance:

Teaching Practice Supervision	easy-hard	.39
	happy-sad	.50
	successful-unsuccessful	.35
	influential-uninfluential	.35
	active-passive	.45
	fair-unfair	.38
	strong-weak	.31
	valuable-worthless	.42
	pleasant-unpleasant	.49

The remaining five factors elude identification. They account for 4.34%, 3.75%, 3.3%, 3.13%, and 3.02% of the variance respectively, so that altogether 61.61% of the variance is accounted for by the ten factors.

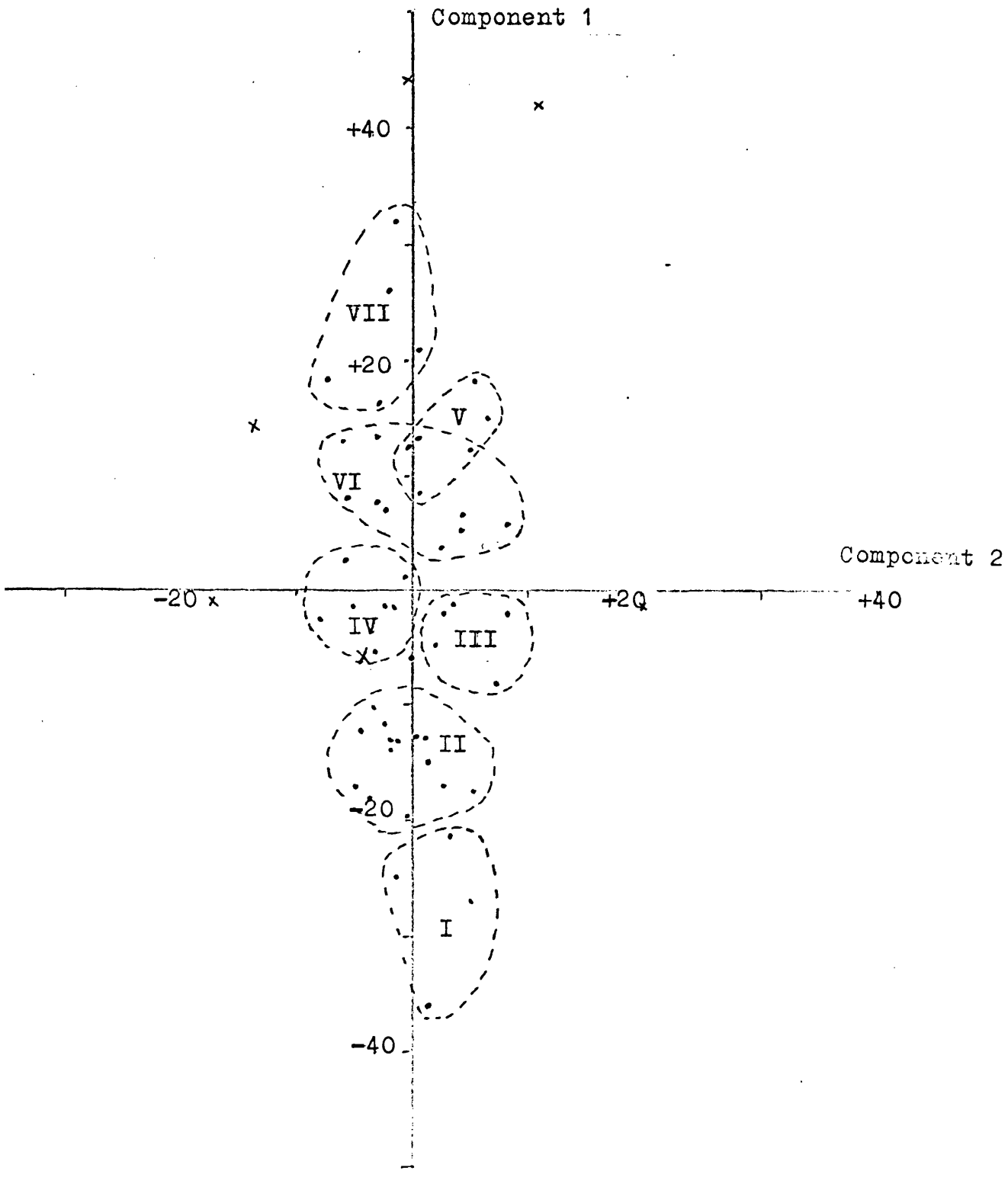
The Cluster Analysis divided the respondents into two groups, consisting of clusters one to four on the right and five to eight on the left of the dendrogram (fig. 6). Those in the right hand clusters tended to be staff with experience of primary and non-selective secondary schools who were orientated towards the professional formation of students, and whose work included teaching on classroom-method biased courses and the Professional course. Of the thirty-four, ten (29%) were educationists, five (14.5%) Oxbridge graduates. Six of the eight higher degrees held by this group related to Education. The twenty-three on the left tended to be academically orientated subject specialists more commonly experienced in teaching abler and older pupils in the private sector or in Public or

Direct Grant Schools. Of these, eleven (48%) were Oxbridge graduates, four (17.5%) were educationists, but none of the four higher degrees held by this group were related to Education. There were eleven Academic Board members amongst the right hand clusters, eight amongst the left. There were in addition six respondents, unique cases, who fell into no cluster.

Cluster 1 consisted of three experienced educationists with 11, 12 and 21 years experience in school teaching. Two were reading for Master's degrees in Education and had been appointed to the College by invitation. The fourth, a former student of the College, had taken further qualifications after leaving and subsequently returned by invitation to join the staff. He was reading for Ph.D. These four had the highest scores of all staff on factor one. Clearly they exhibited high self-role identity. They were the satisfied committed practitioners who were very much identified with the College. They included the Chaplain and a resident warden.

Cluster 2 consisted of fourteen members: the Head of Education, the Head of the Professional Course, and four other educationists; the Head of Art and Design and one of his staff; the Heads of Music and two Science departments; an historian, a geographer and a member of the Physical Education department. Four of the non-educationists were concerned with the Professional

figure 10. A plot of the fifty seven respondents on the first two component axes (component specifications). Clusters are shown by broken lines.



(classroom orientated) course. Three of the educationists had higher degrees in Education; the only other higher degree was a Science Ph.D. The two scientists were untrained graduates; the rest were trained, two in Art College (A.T.D.), three in University Departments of Education and seven in Colleges. The distinguishing feature of this cluster was their relatively long experience in non-selective schools. Their mean length of such service was 8.0 years. This was clearly a practitioner group; ten of the twelve who were trained expressed satisfaction with their own training. The large number of former College of Education students in this group is significant and compares with three out of four in cluster one.

The presence of the two untrained scientists was interesting. One was an experienced marriage-guidance counsellor with experience of T-groups and with a marked interest in personal relationships. He frequently worked with the Education department and his presence was no surprise. The presence of the other was somewhat expected. He said, as some scientists in the preliminary interview group had, that his interest was more in youngsters and teaching than in the discipline of his subject as such. Neither was surprised at the company in which their scores located them when the results were discussed with them.

This large group was the core of those inclining towards the professional frame of reference and included seven Academic Board members. The presence of a significant

number of powerful non-educationists is noteworthy since it contradicts the persistent mythology of Colleges of Education which sees a simple opposition between educationists and other staff who teach the main subjects.

Cluster 3 was a smaller group of five members which included one representative each of the Religious Studies, Education, Science, Geography and English departments. They had a mean length of service of 4.6 years in non-selective schools and were concerned with classroom orientated work as well as specialised aspects of their disciplines. They were long-serving members of the College (mean service exceeded 10 years); two had research degrees, but only one was College trained and subsequently graduated in-service.

The English department member of this cluster might have been regarded as closest to the conventional steriotype of the enthusiastic "progressive" College lecturer. He was a leading figure in the field of children's literature, founder and editor of a Journal, prominent locally in the Campaign for the Advancement of State Education and a tireless propagandist. His department however also included the opinion leader of the opposite, traditionalist persuasion. It may be that the resultant strains led to this respondent's relatively moderate scores on factors one and two. It is in any case a warning against steriotyping.

Cluster 4 consisted of the Head of the Religious

Studies department and one of his staff, two Art and Design staff, a Head of Science and one of his staff and a member each from the Geography and French departments. Like the former cluster these were a group of senior staff, including two Wardens and a former Chaplain. This average age was high; only one had a higher degree gained relatively late in his career. Neither of the two young members had relevant school experience but had been appointed for special expertise; the other six had a mean experience of school teaching of 11.0 years.

Unique Cases (Right hand side)

Respondent 21. This respondent had a decade of service in the College. He was a man of marked and outspoken views who had been dismissed from a course during his own (College) training but had subsequently achieved Diploma and M.Sc. and was contemplating M.Ed. He made no secret that he did not share the outlook of his Head of Department and that his own alternative philosophy was not regarded as a positive contribution there. He was one of the few who was applying for posts outside College. He had unusually high scores on the small factors 7 and 8.

Respondent 23. A member of the same department as the preceding respondent, he was a former student of the College with fifteen years service in College. He had specialised in a rather uncommon area of his discipline, and felt that the more academic orientation introduced after 1963 and accentuated by B.Ed. was constraining; he

would have preferred integrated work with another department and longer time units for his subject. He admitted dissatisfaction with the College course as a whole, and felt that he had an uphill task in his work with many students who were not volunteers. His work area had narrowed over the period of his service. He had a very high Constrained/sad/tense score on factor 2.

Respondent 55. This respondent was a member of a traditional subject department with ten years of service in the College. Unlike the former two he was a graduate and had taught in a public school. He did not advance strong views; his unique position is the result of his extremely high factor two, Free/happy/relaxed scores.

Cluster 5, the first of the left hand clusters, was characterised by its negative evaluation of the College on factor one and its positive evaluation of Study-Practice, factor three. It consisted of the Head of the English department, a mathematician, and educationist and a member of the Art and Design department. These were people with some inclination towards the professional frame of reference, (two were ex-students of the College) but who did not closely identify with its aims: they thought it was going about the job in the wrong way. It is possibly significant that two had to cope with serious administrative constraints on their freedom of activity, and the other two had experienced problems of professional reorientation as a result of the growth and work-specialisation which had

taken place in their departments.

Cluster 6 with eleven members constituted the core of the academic, subject-orientated side of the dendrogram. It contained the Heads of three large departments, P.E., Mathematics and Geography, as well as the designated successor to the Head of Mathematics and two lecturers in charge of small subjects. In addition there were three educationists, a senior member of the P.E. department and the senior Warden, an historian. This was therefore a powerful group strategically placed in the College structure; five of its members were over fifty-five, only two under thirty-five. It included five Academic Board members of whom two were very prominent. Nearly half the members of this group had very little service in schools and most of what they had was in selective schools. The mean length of school service for the group was 4.2 years. Eight were Oxford or Cambridge graduates, including all the educationists, and two of the latter were untrained. Only two of this group had been trained in Colleges; the group as a whole contained seven untrained graduates.

They were a group of subject teachers who experienced the need for the professional formation of the students as a constraint upon their work, draining their departmental staff into Professional courses and interfering with the rhythm of teaching as well as competing for students' time. The three educationists had not prepared for College work by prior courses but had special skills to offer. One had

what might fairly be described as a national reputation in a field other than education. They did not form a definable sub-group within the Education department but worked in widely separated areas of the discipline and in a markedly individualistic way.

Cluster 7 consisted of two members of the English department, a musician, a scientist, and a mathematician. All were highly specialised in their work areas. Only one was a College trained teacher who had worked in non-selective schools and was concerned with the Professional course. Lengths of service in schools were 11, 12, 0, 3 and 13 years. This was not a very veteran group in College. They represented a "hard-line" outlook. The two English department members were very forward in criticising both the organisation of courses and the aims of the College. All cherished their academic discipline and personal expertise, and felt severely the constraints imposed by the need for the professional formation of the students; they held that true professional formation came from love of the subjects. They were thus, not surprisingly, extreme scorers on factor one, dissatisfied and seeking to introduce change. They were not all easy to interview since with one exception they had taken up a public position in the College at the time of the interviews concerned with strategic policies much debated at that time. They had sympathisers, including some amongst those who avoided being interviewed, but they had not succeeded in mobilising opinion to any

great extent and were not united. They tended to take up firm positions within their departments, and these positions were respected; but they were not well placed to influence overall policy. Only towards the very end of the investigation did they succeed in getting a representative on the Academic Board.

Unique cases (Left hand side)

Respondent 35 was a College trained teacher who had subsequently graduated and after a very successful teaching career had come into College work at the suggestion of an H.M.I. He was one of the most frank and insightful informants, and held firm views to which he had given much thought. He experienced the College situation as a severe constraint upon his work and had a most extreme disapproving score on factor one. He was strongly and lucidly critical of some of the central organisational features of the College, especially of the Subject departments/Education department separation, and considered that the College was failing to make students ready to meet the difficult situations they would encounter in classrooms and the problems of making their teaching effective. Like unique case respondent 21 his decided views were probably not seen as a contribution within his department, though as in the other case, they were supported by considered reasoning, not mere ideological assertion or emotive language about the worth of subjects. He was a rather extreme scorer at the Constrained/sad/tense

end; though as an experienced teacher, quite favourable to Study-Practice.

Respondent 56. This was a young, academic and scholarly musician. He was very dissatisfied with his own training in a U.D.E. and impatient to a marked degree of the views of the Education department. He had not found fulfilment in the work and did not share the outlook of his Head of Department (who figures in cluster two). He was frustrated and disillusioned.

Respondent 43. This was a College trained teacher who had graduated and taken a higher degree, changing his former professional discipline in doing so. He experienced the College as a severe constraint. It seems likely that he was rather cross-pressured on the one hand by his initial training, strong classroom teaching interests and interest in group relations, and on the other by his very specialised and advanced area of College work and the highly specialised and very well research qualified colleagues in his department.

Thus the unique cases are frequently in a special minority position in their departments and tend to hold particular professional views discrepant with those of colleagues or their departmental Heads. Where there are two unique cases in the same department as happens twice, they do not, however, collude to form a clique but maintain separate ways. They are neither excentric, deviant socially, nor "the only one in step"; simply, they have strong individual positions which in the most obvious

cases are recognised as such in the College as a whole. None is, nor aspires to be an Academic Board member; two would leave if they could.

There were six members of staff who avoided interview, and nine who consented to be interviewed but who declined or did not return the instrument in usuable form.

Discussion

Cluster analysis assists conceptualisation by objectively grouping together people or objects on the basis of similarities or differences. It groups by variables, that is to say, without necessarily imputing causative underlying dynamics to the properties (Tryon, 1970). Like factor analysis it is primarily a method which falls within the logic of enquiry rather than the logic of validation, valuable in refuting a prior hypothesis and in suggesting new ones. Even if the empirically discovered clusters do not form meaningful composites or rational categories, within-group similarities and between-group differences can be demonstrated. The objective feature defining a cluster and differentiating it from others can be given clear representation and a mathematical basis. This is a considerable and valuable advance in the common situation in social science when two extremes are visible but the intervening groupings are hard to detect.

Sharp clustering is, of course, not to be expected, from the nature of individual differences. But the clusters

are defensible because they are discovered by empirical and mathematical techniques, not by armchair speculation. The clusters identify human groups on common characteristics, in this case the common perceptions and judgements revealed by the Osgood-type instrument. Until more is known about concept-scale interaction, the investigator can only use his best judgement. Once expectations have arisen in the investigators mind, unbiased selection of scales is not easy. It would be desirable for interviewing and scale construction to be carried out independently. As this work was carried out without financial support such a possibility was not available. The interpretation of the clusters offers problems rather similar to those of identifying factors in traditional factor analysis. However, in contrast with a number of previously published cluster analytical studies, the respondents were known to the investigator as academic colleagues and had been interviewed at length. Observed behaviour and verbal responses were thus available to facilitate interpretation.

The empirically identified clusters exhibited in the dendrogram make good sense. They are Tryon's "meaningful composites" consistent with observational data and interview responses. The subject-academic/professional-practitioner continuum emerges as the significant intelligible discriminator, but the middle ground as well as the extremes is illuminated and some light is cast on the inner nature of this discriminator by the factors. Respondents from a range of points on the continuum can

be found in each major department, and the often asserted antithesis between educationists and non-educationists is shown to be an oversimplification in this instance. The subject-academic end is more behaviourally "visible" than the other since the extreme holders of this view experienced the organisational form and the prevailing priorities within the College as a hindrance; they thus tended to be vocal both in departments and College wide meetings. They took public initiatives such as putting up notices and canvassing for supporting signatures to statements embodying their views on particular issues. The group toward the other extreme, being staff who experienced a marked congruence between their personal needs, wishes and capacities and the work-possibilities and organisational form of the enterprise were less behaviourally identifiable; they were submerged, so to speak, in the satisfied behaviour which is the dominant mode where the bulk of members are normatively committed.

The factorial approach brings into clearer focus and gives empirical evidence for a diversity of perceptions and evaluations held by the respondents. Prior socialisation to the profession, and internal differentiation within the College arising from specialisation in tasks and from response to particular sub-environments, are likely to promote diversity of meanings which members may give to the situation. This presents a need for processes to maintain a common direction, to make strategic policy choices by agreement, and to bring about requisite integration.

The factorial approach illustrates the end product, seen at a particular moment, of a complex accommodation of initial belief and value systems, brought in by staff on recruitment, to the requirements and opportunities available in the College's organisational pattern. It shows how it is possible for common frames of reference to lead a group of staff to prefer one solution or statement of priorities even though as individuals they belong to departments with differeing interests. No doubt departmental interests are uppermost in certain types of decision; the allocation of staff, services, or money for example. But frame-based interests may influence the sympathies of those not directly involved in the outcomes of specific disputes, and may well predominate when strategic policy is involved, or the code of priorities, new courses, or new product-mix of students. I now turn to the work groupings in order to examine effects stemming from structural differentiation.

Note to Chapter 4

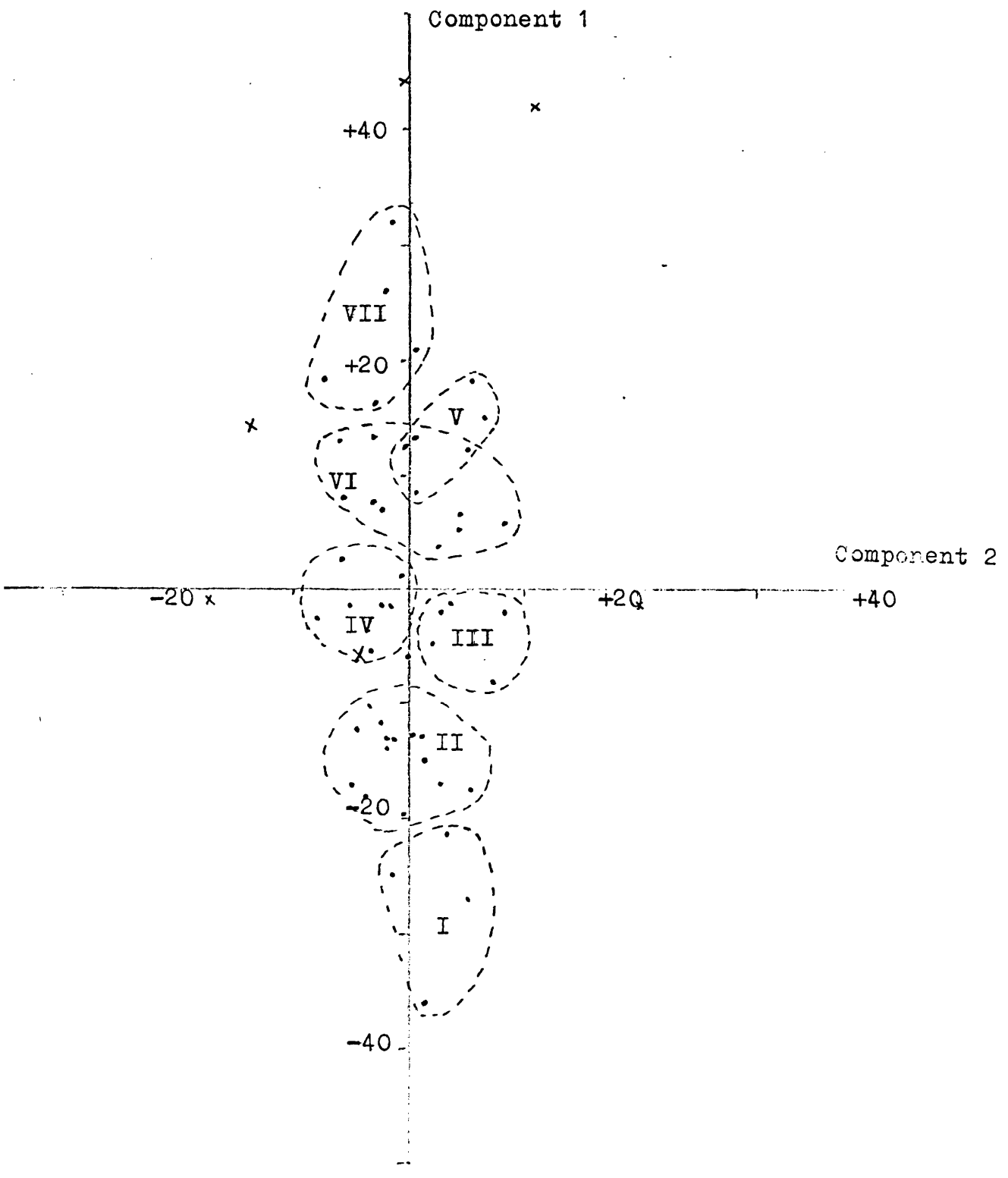
Some further analysis of the numerical data was performed in order to check in some measure the reliability of the results presented above.

A Varimax rotation to simple structure was carried out in addition to the Principal Components analysis. The results of this are recorded in the columns headed "V" in

table 14. Principal Components analysis was required by the programme as a basis for the eventual Cluster Analysis; but it is frequently the case that derived solutions after rotation of the reference axes appear to be more convincing. Varimax, which distributes the variance more evenly over the factors, often brings more clarity to the interpretation. In addition if the factors remain stable across the two procedures there is an increased likelyhood that they are not artifacts of the particular process of analysis adopted. Ten factors were specified for the Varimax rotation. As a scrutiny of the table shows the Varimax solution confirms the major groupings of variables in each factor but it does not add significantly to the interpretation based on Principal Components; nor do the last five small factors become any clearer.

Somewhat similar considerations apply to Cluster Analysis techniques. The stability of the clusters across different sorts of clustering techniques is an indication of their reliability, and it is desirable that data should be subjected to more than one kind of clustering procedure as a test. Moreover what the dendrogram imperfectly illustrates are multivariate relationships which cannot be fully shown in a two dimensional diagram. If results, particularly dendrograms, produced by applying contrasted techniques to the same data are compared, the complexity of the situation is more apparent; oversimplified interpretations are less likely.

figure 2. A plot of the fifty seven respondents on the first two component axes (component specifications). Clusters are shown by broken lines.



For this reason the data was reanalysed using a program (Mather 1969) which employs standardised orthogonal axes derived from partial R-mode analysis. Instead of correlation coefficients, the Euclidian distances between the points in the space defined by these axes is used as the basis of clustering. The results derived from this markedly different technique provide a considerable degree of confirmation for the clusters derived from the Ivimey-Cooke program. So far as I am aware there is no mathematical measure of the similarity of dendrograms. Inspection shows that the essential structure of the clusters and unique cases remains intact with minor modifications.

To particularise briefly. Respondents who consistently use one end of the scales in the Osgood-type instrument will be more likely to appear in extreme clusters whatever method of clustering is used. Similarly respondents whose pattern of scores is very idiosyncratic will appear as unique cases. On the other hand where a substantial number of respondents have a rather similar pattern of scores, as occurs in the large clusters two and six, some reshuffling attributable simply to the programme is to be expected. Under the Mather programme the large cluster two, whilst retaining twelve of its fourteen members, is divided into three sub-groups which in a three dimensional representation would be separated in "depth" though discernably related in the other two dimensions. The large left-hand cluster six is even more separated, a group of five of its members

migrating to a position nearer to cluster four and a further group of two migrating nearer to cluster three. The rump of cluster six is shown as the more markedly 'academic' core, whilst the migrants, significantly remaining in groups, are drawn towards the ill-differentiated central area occupied by the middle clusters four and five. In a three dimensional representation all these clusters would congregate, so to speak, centre-stage, varying their locations within this restricted area arbitrarily according to which programme was in use.

Other than this, eight respondents migrate under the Mather programme into clusters immediately adjoining their respective clusters under the Ivimey-Cooke programme, the cores of the latter clusters remaining. Only two respondents are drastically reallocated by the Mather programme.

CHAPTER FIVE

I now consider the pattern brought about by structural differentiation and the response of departments to their sub-environments in the hope of indicating that there are important factors which influence the diversity of meanings and definitions of the situation current in the College. The particular selection of knowledge which is the context of the teaching done by any department, together with the attitude taken to that selection of knowledge and the way it ought to be transmitted (Bernstein 1972) is influenced by the world of the particular discipline, its significant figures, their writings, the research output and so on. Many factors must affect the amount of influence the sub-environment has upon the subject department in College: frequency and intensity of contact, cost in time and money of sustaining contact, processes for the diffusion of new information within the department, to name only a few obvious ones. What is sought out and retained as significant is also influenced by what may be expected to interest school teachers of the discipline who are, as it were, recipients at second hand. Responses to the world of the discipline provoke and accentuate structural differentiation and provide departments with sub-goals and a characteristic micro-culture which together influence their group preferences and choices. Moreover, the resultant general shape of the College offers staff members, differentially, opportunities to accommodate their

individual preferences. The potentiality for the identity and the professional role of a staff member to be brought into alignment varies from department to department and constitutes a problematic area. I examine one process of accommodation in detail.

It is frequently stressed, notably by Perrow (1967), that the best starting point for an understanding of processes within organisations is the technology in use. In manufacturing industry a materials technology is the most immediately obvious feature, but an operations and a knowledge technology are also involved (Hudson et al. 1969). There is virtually no materials technology in educational enterprises, and the operations technology is basically the social interaction of learners and teachers together with techniques for coordinating and programming the often considerable throughput complexity (in respect of number and combinations of courses, variety of modes of interaction and range of actual and possible sequences in which the operations may be performed). If the operations technology remains for a large part institutionalised by tradition and the conventions of timetabling, the knowledge technology exerts pressures for change and differentiation. At the day to day level these are dealt with by maintaining the large discretionary element in the lecturer's role and protecting his autonomy. Certain other accommodations which individuals have to make or wish to make, have to be

negotiated, usually within, but occasionally across, departments; and they are not public. I could raise these matters in the interviews but the processes could not be directly observed. One particularly extended piece of negotiation could however be studied in some detail and is presented as an example of processes at the sub-unit level.

Knowledge as content of teaching is an input into the system since it is overwhelmingly generated in the environment, or more precisely in a series of special sub-environments to which the subject disciplines are related. What is considered significant educational knowledge in religious studies, for example, is influenced by what is going on in the religious culture, locally, nationally and internationally. It might be thought that this culture was changing more rapidly than the supposedly more stable sub-environment to which English studies respond. What is going on in "the world of English","the world of Religious Studies", or "the world of Mathematics" may be going on at different rates; and at the same time the degree in which the individual lecturer perceives and takes professional account of these changes, the degree in which he keeps in touch or up to date, also varies. A member of staff who perceives fundamental changes taking place in his area and so wishes to introduce changes in what has been considered significant knowledge in his subject, may be ploughing a lonely furrow in a department whose other members are less aware of the changes, who regard them as

passing fashions or as his personal obsession. Clearly, too, according to their position on the academic/practitioner continuum, some will see significant knowledge primarily in the logic, information and unique concepts of their discipline, dependent on research findings, whilst others will see it primarily in terms of how the subject is approached within the school classroom, a matter dependent on practice and interaction with serving teachers.

Changes in what constitutes significant knowledge affect educational institutions much in the same way as advances in technology affect manufacturing enterprises. They affect the general pattern of operations, the way work areas are marked out and allocated, the consequent career patterns of staff and power distributions amongst groups, the eventual knowledge, belief and attitudinal states of the students who leave, and the skill the latter possess. Processes are needed to cope with these changes and with the only partly foreseen, unplanned and poorly controlled structural modifications which tend to follow in their wake. These changes are in fact new constraints, and patterns of activity must be established or modified to take account of them. Such processes often take the form of negotiations, discussions or meetings, both formal and informal, as a result of which accommodations are made. At some point decisions, not always explicit or formulated, are required. Informal processes range from gossip and the exchange of information to deliberate canvassing and lobbying and the important matter of prolonging discussion of central

issues over drinks when the Academic Board has broken up. All these are significant. They maintain sentience, develop climates of opinion, create and maintain pressure groups; whilst they rarely generate agenda items for the Board, they are central to the important matter of interpretation of information. From them emerge tacit understandings which supplement the formal rules and precedents.

They escape systematic observation. Only the more formal processes can be considered, and then only through the filtered perceptions of senior staff interviewed. The only significant intermediate bodies between the individual lecturer and the Academic Board are the subject departments (and near-departments which are not fully constituted) which I shall refer to as sub-units. There are a few committees for special limited purposes such as overseeing the running of the Library, or the Staff Club, or the Audio-Visual Aids sub-unit, or looking to the special interests of resident staff. They may meet twice or thrice a year, but are without "political" significance, as are the various staff-students committees. The significant absence is of any Heads of Department committee, Steering committee or suchlike inner power group alongside the Board. According to one knowledgable senior informant the College culture resisted such groupings because individualism was institutionalised in the pre-Academic Board period when the major process was competitive lobbying of the Principal, on a personal basis, for resources. A study of micro-processes

at departmental meetings would certainly get down to the day-to-day decision and policy making behaviours in enterprises such as the College; but I was unable to undertake it. What I could reasonably hope to consider were the processes which, in departments, promote an accommodation of the individual to the changing task; and of departments to changes arising from growth, from the introduction of new courses, from changes in the knowledge technology, from changes in the balance of academic and professional requirements, and from long term changes in the environment.

There were seventeen subject-areas with departmental Heads or Tutors-in-charge. The largest was Education with 23 staff; P.E. and the core subjects of Maths and English/Drama had 12, 10 and 13 members respectively; Art and Design and History had 8 members each; the rest 3, 4 or 5 with French, Economics and Environmental Studies 1 or 2. Students' responses indicated a very marked perception of the fact that these subject areas are well insulated from one-another. The work they required from students was poorly coordinated since each department was largely unaware in any detail of what the others were doing. All groups of students interviewed saw this as one of the major organisational failings of the College.

> "There seems to be - as regards the academic side - one department seems to be unaware of what another department requires of you.... You end up by doing everything superficially and badly" (4th Year B.Ed. group)

> "Each Department seems to run very separately.... What disturbs us is that one department doesn't know what the other department has, workwise.... Each department seems to consider itself, understandably I suppose, as the most important department..... They seem to consider 'If I set you work it should be done regardless of anything'." (2nd Year Mature students)

> "Does one department know what the other is doing? It doesn't seem as if there is any coordination between departments.... I don't think they are concerned. I don't think the (--) department is concerned about what other people are doing.... They are all trying to pull their own strings." (First year students, after 4 weeks in College)

All these were responses to the question "How do the different departments work together?"

According to whether he or she was an intending Primary or Secondary teacher, a student might be involved with as many as five departments at the same time for some of the terms. The College ran courses of one, two, three and four years duration as well as one-term in-service courses. Though the combinations of subject and duration of courses for individuals fell for the most part into a limited number of patterns there were many marginal combinations. This is an aspect of through-put complexity.

What is principally being sampled in the opening questions

of the main staff interview schedule is the first (general evaluative) factor revealed by the Osgood instrument, the congruence between the real situation of the staff members and their preferences. The range of responses revealed how oversimplified is the view which sees the division in outlooks in Colleges as being no more than the opposition of the educationists and the Main subjects staff (Percy 1972). There is some polarisation on the dendrogram; but the spread of educationists across the clusters is as great as that of the others and there is much overlap. Still more is it significant that power does not lie with the extreme clusters who are vocal.

In general those who fall towards the right hand (practitioner/professional) side of the dendrogram revealed by their interviews responses that they did not see severe problems of integration nor competing priorities as between main subject work and total professional preparation. Some certainly saw problems of compartmentalism, that is, the two concurrent aspects were not necessarily integrated in the students' minds; or even said that some students might lack awareness of the intended relationship between the two strands. It is noticable both from the Osgood ratings and the sentence completion, that students received rather few high positive evaluations, and some quite critical ones. Thus some respondents who fell towards the right hand end described students in terms of their lack of maturity and failure to profit from opportunities for personal development. A number of the Education staff, as

might be expected, fall towards this end of the spectrum, though as a group they exhibited a wide range of opinion and were distributed over all clusters except number seven, though none was a unique case. The founder members of the department, together with rather junior group fall in clusters one and two; a middle recruitment group, in contrast, who had been recruited to the department in the Robbins era of the 'sixties for their specialist contributions in experimental psychology, sociology, philosophy, etc. were more willing to give weight to the College's reputation for advanced work. They considered that a study of the more theoretical aspects of Education should be carried out with the same rigour as that of main subjects. Though some of these fell in cluster two, others ranged out to cluster six (even after the Mather programme).

Non-educationists in cluster two were similarly happy with the balance of the course and not over committed to main subjects as pure disciplines. Such staff in clusters three and four increasingly tended to mention the time constraints and the divisions between the academic and education/professional elements. Significantly there was more concern for standards and more marked criticism of students' work attitudes.

> "We meet them more than half way by accepting standards (of work) that objectively considered are inadequate to their professional needs - out of liking, to get on with them and to be popular, to be oversensitive (sic)

to their anxieties and difficulties."
(Religious Studies tutor)

"Its not a problem for the better organised, more able student...."
(Geography tutor)

"We try to do a difficult job with school leavers. People are asked to suddenly mature and be ready for a profession. They haven't time to get a variety of experiences necessary for the job in hand.... there isn't time to soak it up through the pores."
(Art & Design tutor)

These non-educationists on the right/middle of the spectrum did not see themselves as outright specialists. Provisos mentioned included:

.....Not in the University sense

.....but with wide academic interests

.....yes and no; the subject is so broad

.....for B.Ed. yes; but with a working knowledge of the general area

.....I'd like to be (i.e. specialist) but in a department of five....(implies "I can't be")

Those towards the left hand, academic, end of the dendrogram, by contrast, more frequently saw time which was spent on professional aspects as a constraint on the study in depth of a subject. They saw this latter as the fundamental route to personal development, and frequently stressed the teacher's need for academic competence as having primary, and complained about the balance of the course. Their criticism of students more commonly drew

attention to lack of ability. Thus:

> "Some of them study in depth - the top echelon. The lower third.... one begins to wonder why they're here at all. More than half our people are not working to capacity." (Cluster six tutor)
>
> "Students are decent types with limited ability. It's not lack of time but lack of ability; time would do no more for them." (Cluster six tutor)

In cluster seven the pattern is unambiguous. Other work is "a serious constraint" on subject teaching.

> "Anything that interferes with the (personal) education of the students is to be lamented." (Cluster seven tutor)
>
> "I feel embarrassed they've been though my hands." (Cluster seven tutor)
>
> "With the swing to middle and primary we are missing out on people really interested in the subject." (Cluster seven tutor)

Any department may have staff widely spaced over the spectrum illustrated, particularly if it is large and long established.

The major part of the interview schedule concerned the consequences of growth and differentiation, responses to the environment, the impact of these on staff work-areas and the organisational consequences for departments.

Until the 'fifties the College had not specialised

into sub-units. A handful of staff recruited for general competence taught usually more than one subject to the modest level called for by the two year course during which students were required to spread their energies over several disciplines. A simple departmental structure appeared as the College expanded to 500 places. It developed rapidly with the coming of the three year course, the sharp rise in academic standards and the recruitment of specialists in the 'sixties. The core disciplines of Mathematics and English and the 'wing' subjects P.E. and Science, together with Education, expanded rapidly. Art and Design, History, Geography, and belatedly Religious Studies developed to middle size. Only the abandonment of "B" (second main) subjects which occured during the period of research gave the remaining small subjects quasi-departmental standing, though they were recognised for B.Ed. degree purposes.

From the mid-'sixties internal sub-specialisation took place within the largest departments. The Science department segmented into Physics, Chemistry and Biology, one biologist breaking away to set up a small unit of Environmental studies. English was more complex. The department had originally consisted of two Oxbridge graduates and was heavily "Eng.Lit." orientated. A new member was appointed to the department to start Drama and rapidly raised the numbers of his staff to the point where its status as a separate department was virtually assured. C.C.T.V. and Speech also specialised out of English, whilst

staff with wider experience of non-selective schools were recruited to develop the more classroom-orientated side of the work. The eventual structure of the department was a loose federation from which Drama and C.C.T.V. had to a large extent seceded. By contrast Mathematics and P.E., despite a somewhat similar rate of growth, had retained a much more markedly unified structure. The P.E. department had the strongest tradition in the post war College both in quality and quantity (to quote the 1950 Report of H.M. Inspectors) and conducted a one-year supplementary course from 1950 to 1962 which conferred considerable prestige on the College, as did the publicity gained from the remarkable successes of the rugby teams. The 'wing' concept was introduced so that Colleges so designated could be enabled to undertake advanced work in special shortage subjects; it led to heavy investment in high-cost buildings, the cost of duplicating which eventually restricted the growth rate of the P.E. department. This department became almost a College within the College, its own facilities giving it a certain territorial differentiation, and its distinctive dress and the public situation of its sports performances contributing to a very marked identity. It was the only department which succeeded in its demand for specialist supervision of its students on teaching practice, though other departments struggled to achieve this advantage. It was a priviledged department, jealous of its special position, led by a forceful personality who was prominent on the Academic Board

and one of the two indisputably powerful figures in the "political" system of the College. The Mathematics department entered the period of expansion with an ageing personnel. Between 1958 and 1972 five members of staff retired and two left on promotion; also a new Head of department was appointed. This rapid turn-over of staff (by College standards) combined with growth, enabled the department to be rebalanced as a matter of deliberate policy. As nearly all the staff were relatively recent appointments the tendency to establish personal work-areas was less strong. The Education department was a special case. From its origin as a small peripheral unit in the early 'fifties, it expanded sharply, achieved control over the administration of Teaching Practice and over the professional course; after a long struggle it gained parity of time with Main subjects, was recognised as a compulsary course for B.Ed. and coordinated the training course for over one hundred post-graduate students. Between 1958 when it numbered four and 1971, when it numbered 23, only five members left, all on promotion. Despite its diversity of tasks and the differing contributing disciplines of Psychology, History, Philosophy and Sociology, it remained unsegmented. A micro-culture of generalism ("We are all G.P.s") was fostered and a structure of interrelated year Panels, none of which showed a tendency to split off, came into being. Only one member largely disengaged from the department to set up an A.V.A. service, though this was never formally separated.

The course changes which followed the new D.E.S. policy on the balance of training favoured the central Mathematics, English and Education departments whose courses were compulsory for the majority of students. P.E. was inherently strong, and the Sciences, as a 'wing' subject, a rather specially protected case. By contrast the disappearance of the "B" subjects reduced the scope of the middle sized departments. Staff reductions were largely made at their expense. The effect over all was to favour the larger departments which, though potentially subject to fission, were more able to meet plural demands, whilst the smaller departments were strained in their attempts to cope with a wide range of entrants and the advanced B.Ed. work with limited staff. The problems of the Art and Design department, for example, were formidable, since it had to deal with heavy craft, pottery, fabrics, graphics and picture making in by no means wholly suitable buildings created ad hoc as each phase of the building programme matured. Both History and Geography found it hard to retain their most junior member, since these tended to be specialists but were denied an adequate specialist role because of the demand for generalist teaching. Since modern specialisms tend to be in short supply nationally and yet are essential for the B.Ed. teaching, it is not easy to provide small but balanced departments. The rather late development of Religious Studies to departmental size was an advantage in this respect; new trends could be reflected in recruitment, sabbaticals were used, and in

addition there was less pressure from well qualified students requiring advanced teaching.

The smaller departments of French, Music, Economics and Environmental studies had to limit their College roles, of necessity. There was considerable use of part-time staff, and one-year Assistance, rather less of staff from other departments. Since too they had rather small year groups of students, often not in double figures, they were also very vulnerable to fluctuations in demand.

Accommodation and work-areas

Whilst the older cohort of staff were not recruited as specialists, they were overwhelmingly graduates. As the eventual departments took shape some of these took the opportunity to specialise when the much more advanced work undertaken in the Robbins era appeared. Many, but not all became departmental Heads able to choose preferred work areas to be retained alongside their administrative functions. Even so, the more specialised recruits who came later brought in recently developed or currently fashionable aspects of their disciplines (computing, children's literature, philosophy of Education, scientific Geography, biomechanics, for example). Such staff might often achieve a prestigeous and independent work-area not related to their seniority in College or departmental hierarchies; in doing so they might seriously limit the work areas of older or less specialised staff. The most drastic accommodation, leaving the College, was rare. Not

more than ten staff, all young, left from discontent with work or prospects in the period 1958-1972. However for a further group of about half a dozen (all substantially over fifty) only a limited teaching role could remain. They were survivals of an earlier period. They had not been denied promotion and three had residential or administrative roles which contributed to the collegiate life of the students. Their presence on departmental establishments hindered the frank discussion of staff allocation and complicated arguments about inequalities in work loads both of which were important "political" topics. A further six, younger staff, had been compelled to accept a sharply contracted work area because their former broad area had been parcelled out into specialisms or because few students came forward to benefit from their advanced specialisms. The majority of staff in these two groups had entered College with very little experience of school teaching.

There was also some voluntary self-redeployment. One staff member became the Academic Registrar, two others developed new small sub-units, and a fourth directed the College C.C.T.V. unit. Such entrepreneurial endeavour needed the opportunity and luck, but also special energy and determination. In sum, therefore, the most likely people to face difficulties were generalists who could not protect their original work area from erosion, and narrow specialists with little school experience for whom too few students appeared. The former could at least

seek to improve their qualifications and most did; the latter were in a substantially more difficult position.

In the short term the balanced solution of the Mathematics department which had three well qualified academically-orientated staff to deal with advanced work and seven staff with a much higher mean service in non-selective schools to deal with the professional aspects and non-specialist courses, might seem the most obvious solution. However, it limits work areas and appeared to reduce satisfaction. The Education department also differentiated to some extent in this way, but was greatly helped in matching work areas to staff skills by the fact that most intending educationists had undertaken prior study for specialist qualifications before entering College. Owing to its early development and its supplementary course, the P.E. department had a disproportionately large group of older generalists. Full use was made of short term appointments, sabbatical leave for re-training, some staff turnover and the opportunities of growth; but increases in the scope and knowledge content of the subject were taking place at a very rapid pace indeed in the 'sixties, and the B.Ed. degree introduced a level of academic work wholly new in such a practical subject. Strain was inevitable and it is little surprising that two unique cases on the dendrogram were in this department. The English department was deprived of elbow-room by the demands of the Drama department; despite some opportunities for rebalancing it continued to rely on the Education

department for a considerable part of the professional work.

Middle and small sized departments had much less freedom of manoevre. The needs of the B.Ed. degree led to considerable pressure to appoint well qualified graduates and therefore to a restriction in the work areas of existing staff which was not invariably welcomed.

Changes in the knowledge content of the disciplines struck the departments differentially, complicating the accommodations demanded by sheer growth. The significant consequence of the three-year course after 1962 was the final disappearance of the unspecialised "general class teacher" of the old elementary school tradition. Instead of five areas in two years, students had only to cover three areas in three years. Time devoted to Main subjects and Education increased dramatically whilst that spent on teaching practice increased only slightly. For a short euphoric period in the mid-'sixties, there was a real hope that the College would again become heavily concerned with degree studies, after the pattern of Loughborough and Goldsmiths Colleges. All conspired to make the College specially receptive to new academic developments. Most of these promoted internal differentiation within departments, but Drama and the small Environmental Studies sub-units were entirely new departures.

English was a delicate balance. Its four senior members were all in the "Eng.Lit." tradition, and

with one of the more junior staff of the department constituted the largest concentration of graduates of the older universities in any department. This was perhaps influenced by the fact that the Principal had read English at Cambridge. I did not succeed in interviewing two members of the senior group; two of the remainder were very strongly displaced to the left of the dendrogram. They tended to give the department a markedly conservative bent, strongly orientated to the personal education of the students through the medium of literature. None of this group had experience in Secondary modern or Junior schools; experience of teaching non-academic children was under-developed.

During the 'sixties quite rapid developments were taking place in the field of English studies particularly in relation to teaching.

Even in the world described by one respondent as "Sacred Eng. Lit." there had been powerful innovating forces. The Leavises had left their mark. "The great divide" between the subject itself and the methodology of teaching it was being bridged by figures like David Holbrook, whilst Hoggart and Raymond Williams pushed on with the task of relating literature to other aspects of contemporary culture.

Perhaps more significant still, professionally, the systematic use of children's own writing in prose and verse led to changed emphases in schools' approaches to the subject. The National Association for the Teaching

of English promoted innovation through its publications and conferences, a rapid improvement in text-books took place, interest in the average and less able pupil in secondary schools was stimulated, commercial interests - publishers of children's fiction in particular - as well as authors, all made a significant contribution. Linguistics began to edge aside traditional grammar, further eroding the formalism of traditional teaching especially for the younger and less able groups. Though no national pressure group or lobby comparable with those operating in Mathematics or Science was set up, it became fashionable to be excited about the new possibilities. Teachers, moreover, as one respondent remarked, are "not so neurotic about English as they are about Mathematics"; there was a ready and receptive audience in the schools, particularly the primary schools.

In the perception of the Head of Department the radical evolution in course content took place in 1967/8. Just before this date three members had been appointed to the English staff who, whilst all graduates, were knowledgable about and sympathetic towards the new work, as well as being more experienced with, and orientated toward, teaching children in primary and secondary modern schools. One of these was a dynamic and enthusiastic missionary of the new spirit. All three were closely involved with N.A.T.E., one being a member of the Executive; a national conference was held in the College, as a result of which a journal was successfully launched and edited by one of the staff.

A compulsory course in children's fiction was instituted for all main course English students.

The impact of these developments was to create a department of two wings, clearly recognised as such by the respondents. The less senior group, though they also taught in their specialist literature fields also conducted the classroom orientated courses which dealt with the innovatory areas. Respondents stressed the uneasy nature of the wings, as representing personal interests rather than formal divisions. The innovatory group tended to hold policy meetings whilst the traditionalists did not. Considerable argument ensued especially between the strong characters on either side, at frequent but irregular meetings which one of the traditional group described as "either pleasingly informal or wildly haphasard" according to the viewpoint of the observer. The central feature of the solution was to structure the course in term-length blocks so that tutors had a group of students to themselves for a term, and "ploughed their own furrow" individually. Another respondent described departmental meetings as "chaotically informal"; it was not a matter of caucuses on either side but of personalities. "We have it out in a meeting"; but papers and lobbying added to the discussion. This freedom - "There are no 'get-off' signs on any territory" persisted through the course until the final B.Ed. year when a syllabus agreed by the University governed the work.

Policy was "precarious - an incredible state of flux

of course", but the new work areas had led to increased choices for students and a livelier atmosphere. Much work could be done in tutors rooms, few specialist facilities were needed, lectures to large groups were rare. Because of this relative freedom from time and rooms constraints, the department could cope with its internal strains which inevitably centred on where the emphases should fall as between the cultural and the professional.

The Head of department saw his role as that of engineer of compromise. He compardd himself to someone engaged in the task of moving a large metal ball with a very long pole. By his colleagues he was seen as an arbitrator, preferring to promote individual accommodations rather than impose narrow majority decisions. Much of the professionally orientated work for intending Primary teachers, a rather small group by the standards of other colleges, was done by the Education department, particularly in the areas of teaching rading, and remedial work. The Head of department liaised with the Drama department in the matter of shared staff, but exercised no general oversight of that department's activities.

The English department could attract a large proportion of well qualified students, likely to be able to work at high levels in the traditional areas of the discipline. It thus had a strong interest in maintaining its academic staffing policy. Its increasing responsibility for professionally orientated work under the course reorganisation,

following the change in the balance of training, led it to demand extra staff, but not to appoint experienced practitioners or reorientate its course fundamentally. Despite its size it was poorly represented numerically on the Academic Board; the whole complex was represented by only one member.

In the English department alignment of identity and professional role was promoted by splitting off near-autonomous sub-units; Drama, C.C.T.V. and Speech. Within the core area individual autonomy was maximised since the presence of an uncompromising cluster seven group made an integrated solution impossible. The result was a serious weakening in the political power of the department. It failed to secure extra staff, lost control of some of its rooms, was drawn into plans prepared by the Education and Mathematics departments, and could not make an autonomous contribution to the professional course. The identity of some of its leading members was so strongly established that it dictated their professional role and set the tone of the department.

The contrast between the English department and the other core subject department, Mathematics, was very marked.

Since high ability main course Mathematics students had been relatively few in number, the need for advanced teaching could be met by a smaller proportion of the departmental staff than was the case in English; but if this constraint was less serious, there had been, respondents maintained, more far-reaching changes in the

discipline of Mathematics than in English. Whilst the traditionalist group in the English department contended that changes in the subject were more apparent than real, or were personal fads or passing fashions, no respondent in the Mathematics department minimised the changes. A core of preparation for numeracy remained, but there had been such major changes in the knowledge content of the subject that in the words of the Head of Department, "it is virtually a new subject". Previous work to "A" level by students was irrelevant; the qualification merely indicated ability level.

Before his retirement the former Head of the department had initiated a change of orientation towards a closer relationship with schools; he had insisted that departmental staff should work regularly in the classroom, and, in collaboration with senior colleagues, had produced several series of textbooks. Change, both in content and approach, became more radical after the appointment of the lecturer who was eventually to succeed him as Head of department. The latter had been associated from an early stage with the School Mathematics Project; computing and numerical analysis developed rapidly. On the professional side, two of the non-graduates recruited to teach the curriculum courses were prominent in the Association of Teachers of Mathematics, one of the major sources of pressure to change the approach to Mathematics in schools. Departmental staff were involved in the Schools Council Mathematics for the Majority, in writing

programmes for B.B.C. schools broadcasting, and the large scale in-service courses that were required because Devon was chosen as an area for the Nuffield Primary Mathematics Project. All these major movements in the world of Mathematics, and others of less importance such as Mathematics Education in Industry, were directly reflected in the courses of the department, whilst the staff appointment policy, regular classroom contact and large programme of in-service courses strengthened the professional element. This was the only department which in fact consistently reported systematic feedback from schools and regular communiation with practicing teachers. Not surprisingly professional aspects and relevance to the classroom greatly outweighed references to the personal education of the students amongst respondents in this department. On the other hand, despite their keen interest in the basic course, the non-specialist staff showed some hankering after a share in the rather limited amount of advanced work available; and as students on the basic curriculum course were not volunteers, teaching them the new Mathematics could be an uphill task. In a period of rapid change, school experience may well be a wasting asset. As a result of the policy of rebalancing, the average age of the department in the early 'seventies was low; only one member was over forty-five. An energetic policy of secondment on sabbatical leave would soon be required to ensure that the large group of practitioners would have an opportunity for more advanced study.

The department was too large to operate without meetings, but still too small to have developed the internal sub-groups, or panels of the Education department. Departmental meetings were reported to be irregular, about once per term. But of all departments it was the most conspicuously given to flocking together at coffee time, to the point of having virtually established territorial rights over one area of the common room. In these daily, informal and well attended meetings departmental business was done. The former Head of the department had maintained a rather firm policy of work allocation; he took the view that it was necessary in order to break down the barriers within the department so as to move to a greater awareness of the needs of the school classroom. This more directive policy had been continued by the new Head. Like Art and Design, which was managed in a markedly similar style, having deliberately orientated itself to the market in schools, the Mathematics department had to steer a delicate course, not pushing the new elements in the knowledge content so far ahead that it "opened up a credibility gap, leaving the teachers behind".

The Mathematics department, even more than the Science departments, was in a seller's market, both as regards placing its students and disseminating its new knowledge content on in-service courses, at Teachers Centres and through publication. It was the only department that continued to run one-term in-service course at College, supported by local authority secondment. It was also the

only department which could prevail upon local schools to accept its students for regular classroom experience other than teaching practice. It was thus in some respects a competitor of the Education department's scheme of study practice; and as it had a keen eye on the Professional Course, also organised by the Education department, there was a measure of latent competition between the two departments which partly expressed itself in the production of alternative plans for course revisions, and critical study of one anothers proposals. A member of the Mathematics department allocated rooms and managed the timetable; hence its information level could begin to rival that of the Education department in the assessment of possible administrative consequences of changes.

In favourable conditions, the Mathematics department had carried through adaptive restructuring, at the cost of an explicitly two tier department and of setting itself problems of staff development for the future. It was the only serious competitor of the Education department. Like the Education department it had appointed many staff by invitation from local sources, seeking to reconcile identity and professional role at the point of recruitment. Whilst in the short term this was a source of unity and strength, the result of this policy was a large group of rather young staff with a limited task.

Education had the most rapid growth rate of all departments. The course was seen first as going beyond a

mere concern with methodology, then as having parity of time with main subjects, and finally as a compulsory B.Ed. component. Its struggle for a fair share of staffing met with success. Respondents unanimously saw the method of staff recruitment as a process of selection by the Head of Department and his three most senior colleagues who were perceived as a power group at the top. Appropriate teaching experience together with completed or partially completed courses for higher qualifications were looked for; more than half the department were appointed by invitation, either being associates or students of the Head of Department on in-service courses for teachers. Of the fifteen respondents eight mentioned the ability "to fit in" as the primary characteristic required of the potential recruit, implying by this a generalist capacity and sympathy with the official value system of the department. Only two members of the whole department had taught exclusively in selective schools, and one of these had taught craft. The Head of department stressed that he had several times risked losing the chance of an extra appointment by postponing his choice, rather than appoint a new member he was not sure would fit in.

The low staff-ratio had delayed the appearance of specialist electives, with their risk of wasteful staff deployment, until the late 'sixties. All staff, even the potential specialists in, say, sociology and philosophy, were appointed, in the words of the Head of Department,

"to learn the business". Nineteen of the twenty three members had completed Advanced Diplomas or Master's degrees before, or just after appointment, or had relevant first degrees in Psychology or Sociology taken after College training. This deliberate staff recruitment policy, together with staff development through sabbaticals and in-service study, and the policy of ensuring that potential specialists participated as much as possible in generalist work, was intended to maximise integration in the department and combat the notion that specialisation implied a preferential status. During the period of expansion it also ensured a steady extension in the knowledge content of the discipline. The official view expressed by the Head of Department and largely accepted, was that "everyone is a general practitioner" especially at first; one new-comer who was unhappy at the wide range of teaching expected of him and wished to restrict his work area was quite sharply discouraged from pursuing this objective.

An ethos of integration could survive since, as a senior member said, the Education course is as much concerned with a process of sensitising, sharpening perceptions and practicing skills, as it is with the exploration of a factual and conceptual content. Also, whilst some development had taken place in the knowledge content of the subject, the changes had been gradual extensions of scope for the most part.

The core of the department's work consisted of a study of the general developmental psychology of children

and adolescents, and of the structure and context of the educational system and the curriculum. Method in individual subjects was the concern of the subject departments, a task which some accepted more fully than others. However the main concentration of experience in teaching younger and less able pupils in the state system was located in the Education department. Growth in the numbers of women students and the change in the balance of training increased the demand for this type of expertise; the decision to introduce specialised and more advanced elective courses, a move which was intensified as the B.Ed. degree syllabus was gradually clarified, increased the need for specialist teaching at much the same time. The latter pressure was not great until the end of the research period; six senior members of staff became recognised as an informal B.Ed. Panel. However there was every sign that with the relaxation of entry requirements for the B.Ed. course, student numbers would quadruple just at the same time as the developing professional course had worked through to all years of students. The Education department would then be severely stretched in both directions at once.

In the early 'sixties on the job training was achieved by a simple form of team teaching under which staff attended each others lectures regularly and thus developed a general competence. Attachment to a small team under the leadership of a specialist enabled some

staff to work up their B.Ed. and other elective courses, but rapid growth led the department to differentiate into "panels" of which the first-year panel was the most developed and formalised; smaller sub-groups still grew up to manage one-term course units. The department contributed a varying number to the Professional course whose Chairman was an educationist and three members were particularly concerned with the large post-graduate course. Presumptive work areas were loosely established in this way; but variations in students' elective preferences, in numbers of students accepted to one- two- three- and four-year courses, and changes in the content of courses to meet the changed balance of training, together with minor factors such as the release of staff on sabbaticals and varying staff initiative in developing new areas of work in schools, etc., meant that the position was unstable from year to year. Final work allocations were made by the Head of Department after consultation with senior colleagues and an eventual full departmental meeting. Courses continued to evolve rapidly even after student numbers stabilised, so that opportunities for adjustment were plentifully available. A number of well qualified but more recently recruited staff would have preferred a greater share of specialist teaching, but overall most staff got most of what they wanted.

The Head of Department had heavy administrative responsibility and generally limited his teaching role to the post-graduate course. The next senior member

organised the placement of students on teaching practice, almost a full time task, as well as teaching advanced electives. The third senior member organised the Professional courses, and of the next two, one was chairman of the important first-year panel, and the other organised the B.Ed. course. Finally a sixth supervised the large post-graduate course. Remaining middle-seniority staff had specialist niches, whilst the more recently recruited group in the department constituted the first-year panel. Stratification was thus quite marked and associated with work areas, but the low staff-ratio, variety of work and institutionalised ethos of generalism ensured a general parity of load whilst minimising overt status differences.

One member of the education staff described himself unambiguously as a specialist, a mature entrant to teaching with a Cambridge degree in Philosophy, who had worked exclusively in secondary modern schools; the only other untrained graduate had an Oxford P.P.E. degree, had worked exclusively in a London Comprehensive, and had been a prominent political figure. These were in cluster six, that is, markedly towards the academic end of the dendrogram, together with the remaining graduate of the older universities in the departmental group interviewed. Four others saw themselves as specialists in a qualified way; these were closely involved with B.Ed. degree work.

Since psychology was established in the 'twenties as a major contributing discipline to Education, it tended to

be perceived as a generalist area; sociology, philosophy and comparative education were more readily seen as specialist. Specialists expressed a preference for advanced teaching - these areas loom large in the third and B.Ed. years of the course; they thought specialists had a better career prospect. Generalists expressed a greater preference for personalised teaching situations where they could operate in their own style.

It was progressively more difficult to carve out new niches, though interpersonal relationships and curriculum development were likely candidates for new elective courses. The less specialised lecturers however had a strong sub-sentience group in the first-year panel and could develop important and respected expertise in such areas as the teaching of reading or the organisation of primary schools; but it was increasingly difficult to move into the specialised group.

The Education department could meet the changes in the knowledge content of the discipline by recruitment, and had substantial advantages for staff development. The expansion of its work area and the panel system promoted easy accommodation, and the latter encouraged systematic negotiation processes. One extended process of negotiation will be examined below.

The Physical Education department was the first to differentiate. Its staff rose to twelve by 1972. They were recruited in youthful vigour so that their school experience was limited; the mean was under four years.

All experience was in unselective schools, and with one exception, all were College trained, four being ex-students of St. Luke's. Of the senior group of four, two had taken sabbatical years for further study. These represented the original stratum of generalists. All save the Head of department had experienced problems of personal accommodation when the work of the department became more advanced and specialised. The structure of the department was such as to present the possibility of severe succession problems on the retirement of its Head, which was impending. Of the remainder, five held degrees from Oregon or Washington, and one had completed a British Ph.D. In-service training was a deliberate policy of the department made possible by the recruitment of one-year seconded assistant lecturers, and by using the services of local L.E.A. organisers.

The ageing senior staff and below them the younger group with subject specialisms made for problems of equity in work load and integration, complicated further by two major changes in the knowledge content of the discipline. Whilst the professional, school-orientated aspect of the subject had always been strongly emphasised (the subject had so to speak no 'academic' element), what one respondent described as the "false core" of the subject, traditional formal gymnastics, was shattered by the more child-orientated "educational gymnastics". By the late 'sixties this was a spent revolution, but left a place for creative movement and dance. During the same period the steep increase in

opportunities for outdoor pursuits introduced a broader, leisure-management, aspect into teaching physical education, and extended the range of skills required within the department. This further promoted specialisation within the junior staff. From the mid 'sixties the department also sought recognition from the University as a Main subject for the degree of B.Ed. This was at first refused. P.E. students had to take another main subject whilst keeping up their work in the department; a clumsy arrangement, it imposed unfair burdens on the students. In order to persuade the University to accept the subject Physical Education had to undergo a theoretical and scientific revolution. Specialist staff had to be recruited and more time devoted to anatomy, physiology, biomechanics, kinesiology, statistics and research methods, and sociology of sport and leisure. The whole evolution was not achieved without strain and adverse effects on work loads, preferred work patterns and relative status of different areas within the subject. In the perception of some respondents the subject had become fragmented and unbalanced, especially as the scientific side was well researched whilst the pedagogical side was neglected as a research field.

The successful struggle to achieve parity of status with other subjects implied by recognition as a main course for B.Ed. was only the continuation of a previous effort to match the standards and reputation of the established P.E. Colleges such as Loughborough and Carnegie. This constant awareness of an outside standard encouraged the

department to persist in a forceful policy of demanding time, not only for subject teaching, but for games, games trials, camps and field weeks, and a very large finance allocation to cover travelling and the costs of specialist supervision in a rural area for teaching practice. Its contribution to the public reputation of the College was so great that these demands could not easily be denied; direct opposition was muted, but found expression through informal mechanisms. The Education department which had an even faster growth rate and a somewhat similar concern for the academic status of its discipline also encountered informal resistance and criticism. There was some measure of tension between the two departments particularly in the matter of time-allocation.

The department was differentiated by age and type of qualification to the point that there was in the perception of one respondent a tension "between the generations". This was complicated by the allocation of work on a basis of ability and enthusiasm. In the view of a senior member, the department had a staid, conservative, even dogmatic image, but the recruitment of younger specialists had brought about "a change of political opinion". There were those who felt that the practical performance of students and general morale had suffered as a result of the emphasis on the newer specialised, theoretical, material; as in the English department, those holding the traditionalist view held that energy was being dispersed over too wide an area, that the newer content introduced

too many "fringe areas", that novelty "had backfired". On the other hand a "wing" College with a national reputation easily attracts and holds well qualified staff. For a P.E. teacher to work in such a College is a major career improvement more than is the case for some other subjects. The junior group thus trod carefully.

The department was the most overtly hierarchical of all. The style of management adopted was firm, with a heavy veto from the Head who retained power at the top, and used it. Junior staff, if frustrated, kept quiet, or resorted to subtle manipulation. Two of the unique cases on the dendrogram were located in this department. It was continuously represented on the Academic Board by its two senior staff; the Head of department intervened consistently on all major issues, and was one of the rather few senior staff who maintained the doctrine that a primary function of an Academic Board member was to defend departmental interests. He considered that the department was somewhat isolated and that communications were poor; he was the only one to advocate a Heads of Department committee openly. Leaving aside the administrative group consisting of the Principal, Deputy Principal, and Academic Registrar, the major 'political' tensions were between the P.E., Mathematics and Education departments, with the poorly represented English department intervening.

Science Departments

A well established tradition held that Science teaching in the pre-war College had been a distinctly limited operation both in scope and level. During the post-war period of rebuilding the cost and technical complexity of modern laboratory blocks put them at the end of the queue. Science teaching was carried out in temporary hutted structures with very limited facilities until a large Science block was opened in 1961. Until the period of expansion a science student could expect to study three sciences, five curriculum subjects and educational theories in a two year course. The acute shortage of science teachers, which was not substantially eased until the 'seventies nevertheless led the College to be designated a "wing" College for Science, as it was for P.E. As a men's College it was better provided with science students, and with its new facilities it was splendidly equipped by College of Education standards (though at about £1,000 per head the equipment at the disposal of science students was less than half of what they might expect at University; and as the B.Ed. courses were instituted students used the facilities of the local University more and more).

Expansion, new facilities, the opportunity to appoint more specialised staff and the eventual retirement of the senior member of the science staff led to a partial segmentation of the unitary department into specialised Physics, Chemistry and Biology. The senior member was the

nominal coordinator. He eventually became the spokesman on the Academic Board, though from an early stage there were always two science representatives sitting as members. The three sciences met as a group once a term under his chairmanship for administrative purposes; but in respect of the knowledge content of the courses, integration was popular with some but intolerable to others. By the test of whether the Head of the subject received an allowance, which normally happened when a department reached five members, Drama was a sub-unit; whether Biology and Chemistry were departments or sub-units by this test I was not able to establish. Science facilities were grouped together, there was articulation of the courses, and it was meaningful to talk of 'science' students; but the departments were in no sense a unit in the manner of the Education department. Organisationally the significant feature was the relationship existing amongst the three elements, not within any of the individual ones.

The Science departments contained the highest concentration of advanced qualifications. Six of the staff held doctorates, four others had second degrees, and of the whole group five were graduates of the older Universities. Two only had trained in Colleges before taking their degrees. Two highly qualified members, however, left the departments during the period of the research, one to become the College Academic Registrar, the other to set up an Environmental Studies sub-unit.

The expansion of science places in Universities and latterly in Polytechnics meant that well qualified (and even quite poorly qualified) science students could proceed directly to degree courses. Despite the outstandingly good employment and career prospects for science teachers trained in Colleges, the number of science students and their level of qualification on entry to the College remained poor over the whole period of expansion. Much elementary work had to be done, or re-done, for poorly qualified students. Yet schools preferred teachers who could teach more than one science, a pressure likely to increase because of the more integrated conceptual approach which underlies modern science teaching, notably the Nuffield schemes. The "wing" status had the consequence that, like Physical Education students, science students were regarded as being in a special category within the College, though much fewer in numbers. (There were slighly more science lecturers than P.E. lecturers.) Virtually all science students were intending secondary teachers, specialists who were unlikely to benefit from the extended professional course. Some of the time they saved by not fully participating in this latter course could be devoted to a second science subject; but the department steadily and on the whole successfully pressed for still more time to be devoted to "ancilliary" courses also in the science area. Hence although there were rather few advanced and B.Ed. students, and despite the relatively small participation of the Science department

in the Extended Professional Course (in the sense that the electives it offered were mainly for science students anyway), departmental staffing was generous.

As with the P.E. department, the 'political' contention of the science departments was that the practical nature of the subject and the need for supervision of relatively small groups for laboratory work was labour intensive. It followed that students should spend more time on science than other main subjects and that a more favourable staff ratio was justifiable. This contention was supported by reference to the conditions of science teaching in Universities. The departments also pressed for specialist supervision of their students on teaching practice, an advantage already gained by the Physical Education department. Success would have further strengthened their case for favourable staffing provision. They did not succeed. The Physical Education department alone retained this priviledge.

The Smaller Departments

Smaller departments achieved their second member at the beginning of the period of growth and developed in a balanced way to include five to eight staff, usually with two or three members deliberately recruited for their classroom-orientated skills.

In the case of Geography recent research emphases had moved towards scientific and mathematical aspects, stemming from the continent and transmitted by University teaching. These had seriously eroded the traditional "Dudley Stamp pattern", become established in higher academic circles, and, via a publishing revolution in the 'sixties, begun to affect advanced school teaching. The presence of a retired professor as a part-time member of the department strengthened the University orientation; like English, the Geography department could recruit many well-qualified students. Little professional experience of the classroom applicability of the newer approach was available. Though it was seen as a potentially revolutionary movement by the Head of department, it had by no means touched all the staff, who in general inclined to "human" Geography. Attempts to meet this problem were made by recruitment, but the new members, being specialised and well qualified in a shortage area, rarely stayed long. The fact that the departmental establishment had been cut added to this latter difficulty; it unbalanced the department and made for problems in the allocation of work areas. This was the only department of the College which regularly worked with its corresponding department in a nearby College of Education; and it used the Mathematics department for courses to assist its staff members in their attempt to accommodate the newer approaches. The whole orientation of the department was specialist by area as far as the staffing position would allow of it;

but as it also had students with quite modest levels of previous knowledge of Geography, it went to considerable pains to run courses at various levels, further adding to its problems of staff allocation.

This was a department under serious pressure at any rate until the "B" courses were abandoned, a process which took three years to work through; and it was constantly on the edge of unbalance. The managerial style was by simple discussion "sharing out the chores". The precarious staff position meant that disagreements were particularly threatening and innovation was slowed; "even if a minority is against it, change won't come". Invitation was not used as a mode of staff recruitment in these departments. The staffing policy of the Geography department was dominated by the need to maintain the balance between the 'human' and the 'scientific' aspects. Steady pressure was exerted on the Academic Board for the restitution of the former staff establishment, but other interests, those of the large departments with a substantial stake in the Professional Courses, were more pressing.

Four members of the department were in the senior group interviewed. The lecturer with the Educational qualification was, predictably, in cluster 2; two others were in clusters 3 and 4 respectively. The Head of department was in cluster 6. As each member looked after his specialism, the department was run with a light hand in an informal way; three of its staff were senior members of the College, including a Warden. It was represented

on the Academic Board by one of the latter who was an experienced city councillor; his experience of drawing up Standing Orders and organising elections by systems of transferrable votes was of great value in the initial period. When his term of office expired the department was not represented, save from the floor.

The History department had a concentration of College functionaries; the Deputy Principal, Senior Warden and another warden amongst its members. Some members thus did not count as full-time staff on the establishment, a fact that gave the department some slight elbow room in the matter of deployment. However it, too, lost one member permanently, and, without mounting the campaign of the Geography department, invariably intervened in formal discussions of staffing to restate its case for priority.

The Head of department was an established scholar who had been appointed before the war. He had been Deputy Principal since the 'fifties. Each member of staff dealt with his specialist area of the discipline, a development which had gone hand in hand with a move from broad lecture courses to more specialised work with smaller groupings so that a reduced number of areas were examined in depth. The department was somewhat starved of first class students compared with the Geography department (curiously, many P.E. students had Geography "A" levels and supported that department's "B" level

courses whilst they lasted; but Social Sciences and Town Planning degree courses have attracted students who would formerly have taken Geography), and would have been further squeezed by the introduction of Environmental Studies or Sociology main courses. The most junior member of staff and his successor left the College after a short stay because there was not enough specialised work to go round.

Aprart from the internal specialisation stemming from growth in size, the subject appeared to be amongst the most stable in its knowledge content. No respondent pointed to major innovations in schools' approaches to the subject. All the staff were graduates; in addition to their specialist areas, two who had primary and secondary modern school teaching experience were responsible for the method courses.

Since the Head of department had a major College-wide administrative function, much of the departmental administration was done by the next most senior member. The Head of department taught his specialist area and appointed staff; four were graduates of the older Universities none of who participated in the method courses. Members scattered rather widely on the dendrogram from cluster two to cluster six with two unique cases. Each member had to have almost complete autonomy in his area at the cost of being tethered to it. One of the unique cases was unhappy with this restriction of his work area and lack of integration in the teaching, factors no doubt accounting

substantially for his pattern of scores. Students tended to be seen as good all-rounders, safe, rather dull, not high-flyers. The market situation was not very buoyant since there was an overproduction of graduate historians.

Like English, History was seen as a subject mainly approached through reading, and thus free of the constraints of time and facilities to a very marked degree. Its stability both as regards knowledge content and methods in schools posed no problems of staff recruitment; but both the young leavers, who were energetic and well qualified, did not find a full outlet for their capacities. Only one of the members, a periferal part-time members, was engaged in research for a higher degree. It was represented on the Academic Board by the Deputy Principal ex-officio and by its next most senior member, who was a warden with considerable experience of administration. As its interests were no doubt well looked after by the Deputy Principal from his powerful vantage point, it had no clearly marked 'political' objectives, except to protect itself from further erosion.

Religious Studies

Religious studies were the staple of the College curriculum at its earliest period when the bulk of the students came from parochial schools and expected to return to them to teach. It was taught by staff of the highest status, the Principal, always a clergyman, and the Chancellor Harrington Lecturer, a member of the

cathedral chapter. The Archbishop's Religious Knowledge examination was a prominent feature of the students' year, and the resulting certificate was part of his qualification. As the College accepted government money and the Dual System was more firmly established, religious instruction according to the doctrines of the Church of England was not admissible as a subject in the government supervised examinations, nor was it subject to the scrutiny of Her Majesty's Inspectors. Diocesan examiners appeared alongside the latter for this purpose. As the state schools gained strength the religious qualifications of students on entry declined; after 1906 fifty per cent of places had to be offered to students regardless of their religious affiliation as a condition of grant. After the 1914-18 war the Diocesan Examination in Religious Knowledge became internal and led to the Church Colleges Certificate in Divinity. The effect of the Dual System was to make religious studies an extra subject beyond the normal curriculum. Between the wars the Principal pressed for the inclusion of Divinity as a main subject; this was not granted until after 1945.

The eventual Head of department was appointed as Chaplain, resident Warden and Divinity lecturer in 1948. There were a number of clergy on the staff of the College, and these together with clergy from the City and other staff of the College assisted the department in its work since it gave a compulsary curriculum course for all students. For a time in the 'fifties a third year supplementary

course in Divinity was also in existence. But the help was marginal. By the end of the 'fifties the eventual Head of department who had resigned his duties as Chaplain and Warden was teaching Main, "B" and curriculum courses practically unaided.

Expansion of the department began late. A second member joined in 1962, a third in 1963, and two more later in the decade. Both the early appointments were of academically orientated staff; one, who joined from the staff of another College had a Lambeth degree in addition to his first degree, the other, who had been Head of department in a local Grammar School came to teach Old Testament studies with Greek and Hebrew, and was conducting research for Ph.D. The later recruits were experienced teachers in non-selective schools, one a former student of the College, the other a student of one of the supplementary courses. Thus all the appointments were by invitation from the local area.

The Head of department had published an extensive series of school textbooks in religious education. In seeking to respond to the needs of the schools he had always taken a broader view than the traditional doctrinally centred Divinity, and was of high standing in the field. One of his colleagues remarked that he "was always ahead of time, so that changes appeared slower". His own view was that the turning point at which change in the knowledge content of the discipline accelerated sharply was the appearance of Loukes' "Teenage Religion" in 1960; though

as another member suggested, the old steriotyped view of orthodox theology had been shattered by such figures as Bultmann in the 'forties. This, taken with the influence of the mass-media, had accelerated change in religious outlooks in society at large. Loukes was appointed external examiner for Main Religious Studies students in 1961; he and his successors were seen as major sources of ideas and support for the fundamental changes in orientation of the subject which were to follow. The work of Goldman who applied Piagetian thinking to pedagogical aspects of Religious Education led to a major reappraisal. The Head of department further developed this line of thinking in his own Ph.D. The result was a rapid development towards moral and community studies, a readiness to train students who would happily work in integrated humanities projects in schools. It was a movement away from traditional evangelical divinity in the direction pioneered at Sussex and Lancaster by such figures as Ninian Smart. An attempt to have the department renamed Religious and Moral Studies at the end of the 'sixties was held by the Academic Board to be inadvisable.

The special circumstances of a Religious Studies department in an Anglican College were perhaps less of a constraint on its activities than the position of religion in the schools' curriculum and the problem of recruitment of Main Course students. All students in the College were required to take a short compulsary course in the teaching of religion in schools after which they could

continue voluntarily and take if they wished the Certificate in Religious Education. Students did so continue in considerable numbers. The course was ultra-liberal in doctrine and strongly professional and classroom orinetated in approach. Two of the staff had been Heads of school departments and the mean experience of teaching was over six years for the department as a whole. Schools in the south west however, where many are rural and small, are a good deal less advanced in their teaching, which is often orthodox and Bible knowledge based. Students frequently returned from teaching practice confused and discouraged by the discrepancy in attitudes. In the view of the Head of department there had long been a profound dissatisfaction amongst students with traditional religious instruction; the gulf between schools' religious teaching and the Church had been growing all the time. The College department was considered even by its most conservative member to be ahead of most theological Colleges; indeed, as one member remarked, the essential point about the knowledge content of religious studies was that "a different profession had got its hands on it" - lecturers not clergy. The department was also substantially ahead of the University Department of Theology and for a time withdrew from B.Ed. because of the latter's obstimate insistance upon Greek.

Members of the department were not widely separated on the dendrogram; they fell in either cluster three or cluster four. The most academically minded member of the

department found his work restricted by the poor quality of Main course students to whom he had difficulty in conveying the results of theological work as it had developed over the last one hundred and fifty years. To him the revolution in religious education was

> "a very rapid retreat from accepted standards and professional techniques.... it seems to be toying with ephemeral methods... change is superficial rather than real".

Each member of the department had developed his specialism; the Head of department concentrated on moral education, another on myth and exegis, a third on Church History and Community studies, and another on the specifically professional aspects of classroom method. The department attracted concerned mature students, and inevitably a number of overcommitted students from the naiver persuasions and fundamentalists; but it had relatively little contact with younger students and post-graduates. By the end of the period of research the Chaplain was a member of the Education department.

Change in the knowledge content of the discipline affected Religious Studies more than any other department, particularly as the change was poorly appreciated in schools. There was no difficulty in the matter of work areas. All staff were active in following up contemporary developments, which were sufficiently comprehensive to offer each a wide field.

The Art and Design Department

Whereas Physical Education and the Science departments had acquired modern purpose-built facilities the Art and Design department existed in widely dispersed buildings none of which had been built for the purpose. It had been one of the most frequently rehoused departments as the various building programmes had progressed, yet managed to develop into an important department of eight staff, and maintain its cohesion. As with the Mathematics department its staff congregated together in a particular area of the staff club in a striking fashion.

Drawing had always been an accomplishment thought suitable for teachers even since early in the nineteenth century, and some form of handwork was recommended and practiced in the College from an early date. During the inter-war years the subject was taught in a formal fashion - drawing and painting. The oldest member of the department was appointed during this period. He had trained at Loughborough and was one of the very few non-graduate appointments (a cheap appointment, in his own words) at a time when the College was in a very preparious financial position. He was a generalist with a mainly craft orientation, but appointed to teach drawing, painting, design and craftsmanship in very restricted facilities. This area of study was almost compulsary, since under the then operating time-table all students had to choose a subject in the practical group. The alternative was gardening.

Succession problems arose in the mid 'fifties when the eventual Head of department was appointed. The subject was being taught in a limited and somewhat archaic way. A major effort of expansion and rejuvenation was required to bring it up to full parity of status with other subjects and to equip a sufficient range of facilities. Though the succession to the Headship of department was solved by the appointment of the newcomer, a graduate with a degree in Fine Art, it gave rise to lasting difficulties in personal relationships. The displaced member developed his own very individual specialism virtually separate from the department and to a level which brought him a considerable reputation. By the time the department was reconstructed, in-service retraining for this member of staff was largely ruled out, since he was over fifty. His case illustrated most starkly the problems facing the generalist who fails to find a niche.

Formidable difficulties faced the new Head of department. There were no facilities for heavy craft, pottery, textiles, printing nor for the newer materials such as glass fibre and plastics. They had to be created ad hoc as each building phase matured and possible, though by no means wholly suitable, buildings were evacuated. In addition the range of ability and variety of interests of the students were particularly great. A disproportionate number were mature students, and, towards the end of the expansion, women. Many of the

mature men were skilled and experienced craftsmen often from the local naval dockyard or the services; but they entirely lacked visual training or developed sensitivity to design. Many women and some men students were intending primary school teachers without much prior formal training. In order to avoid fragmentation of the subject, and for the craftsmen a limited training aimed merely at the acquisition of techniques, a basic course was developed for all students which brought them into contact with all the available areas within the subject offered in the department. This was of particular value to the intending primary and middle school, less specialised teachers. From the third term students concentrated either on art or on craft. As in the Drama department each member of staff had his own specialism, but, under pressure from the Head of department, participated in the general course. Three of the staff held the graduate-equivalent qualification of N.D.D.; three others were ex-students of the College. The nature of their specialism meant that none had primary school experience in teaching; the mean length of service in schools was 4¼ years, all in non-selective schools. One member of staff had left to take up an Art College post in 1962; the department had appointed staff at approximately two year intervals to number eight in all. The department had thus been reconstructed step by step towards a balanced staff and an integrated, deliberately market-orientated course. It did not offer a "B" course

after the mid 'sixties because of its limited facilities, but it made a major contribution towards the Professional course.

Changes in the knowledge content of the discipline of Art and Design have been rapid and comprehensive as it has been more closely related to the world of commerce and technology. Being visual, its end-products have a more immediate impact than the spoken word or the published article, so that innovations and extensions of the content are more directly communicated and impose themselves more frequently than in most other spheres. The staff regularly made group visits to London exhibitions and circulated art journals in a very deliberate way. Yet respondents did not stress the importance of specific influences from the art world. They emphasised the market, the requirement of schools, particularly non-selective schools, for a rounded teacher with a broad training, different from the Art College graduate. One more specialist lecturer stressed the range of skills practiced by the students, pointing to the intention of the course to produce

> "a shallow broad experience". "Ours (i.e. our course) is better than Art College for (teaching) the range of six to sixteen years - Art College is very Art with a capital A".

Another said that the course

> "was adequate for primary and middle schools

but not "A" levels. The students have a school-type timetable, in small amounts."

The core of the course was basic design, developed after its importation from Germany in the 'fifties. The heavy craft lecturers remarked spontaneously that the course they gave was

"design, not craft, centred".

A more recently recruited member of the staff said of his reasons for joining the staff

"I was looking for an opportunity to give teachers an insight into the excitement of teaching my subject away from the usual method of teaching craft where it is simply based on the acquisition of techniques".

The Head of department took the view that

"We relate to the Art world if the movements are absorbable into secondary modern schools. It is to appreciation and understanding that the 'doing' is orientated - a realisation that what the subject is about in schools is not "National Gallery Art"."

The policy of integration was seen to influence staff recruitment. Main considerations in appointing a new member were

"Flexibility, lack of specialisation...."

"General sympathy with the whole range of the discipline; not specialist mentality..."

"A personality we have to live with..."

"Will he fit in the department work in personality and ethos....?"

"personal philosophy of Art and design - has to fit the consensus; must be a G.P. as well as a specialist".

and whilst everyone had his specialist area,

"if a new thing comes up, another has to learn it; someone has to retrain himself in an area."

Before concluding this descriptive survey of structural differentiation amongst departments and accommodations within them one example of processes at work may be considered. During the research period the opportunity arose to study in greater detail the consequences of an increase in staff on the First year panel of the Education department. All staff involved were re-interviewed and many documents were made available to me. It was possible to check interpretations by feeding back collated information and eventually by circulating a working paper.

The decision concerned the content and method of the first part of the Education Course for 360 first year College students. During and before the academic year 1969-70 tutors involved in this work operated a course whose main lines had been laid down in the early 'sixties

when the three-year course was instituted. Students attended two year-lectures and five seminars, each week. Staff teaching the course changed slightly from year to year and minor variations in method and content were discussed at group meetings; but the principle was that provided basic areas were covered each tutor went about it his own way. Thus the normal principle of work allocation prevailed. Personal autonomy was protected at the cost of some lack of standardisation in the course; the knowledge content was stable. During the period of explosive growth of the College in the middle and late 'sixties the first year course came to be used as an induction for new staff members. By the end of the decade there had developed a well established First Year Panel of staff whose school experience was very recent and numbering ten or eleven, about half the Education department staff. By then, however, the seminar work had become to some extent independent of the lectures and was coordinated by hand-outs prepared by any panel member who was expert in the topic of the week. Around these, the weekly discussion and activity centred, though it was not obligatory to follow them in close detail.

A major precipitating factor in the eventual innovation was an abrupt change in the personnel of the panel at the beginning of the year 1969-70. In the previous year the panel had absorbed three new members; but now it had to absorb five more, leaving only two or three veterans who knew the cycle well and were recognised

as senior members. Hence, as one of the newer members remarked, the tradition was not strong and he, at any rate, was "prepared to be told, but critical; not accepting that the old method was essential". The 'old method' had been partially codified by the two senior members who had brought about the existing administrative structure; on the whole they considered that it was premature to change it. But the new members were more orientated to flexibility and choice, particularly as they started virtually from scratch in the first week of the College year with little or no knowledge of the course sequence.

All the new members were qualified at the Advanced Diploma or M.A. level in Education but differed widely in their interests, former school posts and the age groups of children they had taught. There was, not surprisingly, difficulty over the handouts, which were occasionally intended, perhaps, to impress colleagues rather than to help students. The knowledge and reading required fell differentially on the staff: "we all had difficulties in different areas". Feelings of uneasyness were also aroused by the objective-type multiple-question assessment which permitted one group's performance to be compared with another's.

Quite naturally then, as the largely reconstituted panel began to meet for monitoring and administrative sessions, dissatisfaction grew. An early task was to prepare the questions for the assessment test; this led

to a review of ground covered and to clarification of ideas. It also lowered threshholds of anxiety. Paced by questions proposed by other members, tutors became concerned about the likely performance of their group and about the undesirable 'backwash' effect' of the evaluation procedures used on the course. Members worried lest their initial performance in College should seem to be on trial. It was soon clear that the existing course could not contain the potentialities of the new staff and was doomed.

The main outcome of the first term was that it produced a readiness for change in the group, which was an important preliminary. The second phase opened with the common-sense proposal that division of labour in preparing topics should be formalised; tutors assuming responsibility for leading the team should produce a draft hand-out well in advance and hold a teach-in for colleagues. Thus the collective wisdom of the group could be embodied in the final version. Unfortunately a document prepared by a member of the panel in another connection was at this time rather severely handled in discussion. After this no one wished to repeat the experience. Tutors avoided the problem by duplicating the hand-outs at the last minute so that colleagues were presented with a fait accompli.

It should be stressed at this point that the respondents when they discussed these experiences with the writer, indicated that this was a period of trouble

and anxiety; but they did so without rancour or criticism. In recalling difficulties and problems they spoke with animation and enthusiasm, and stressed the group's achievement in facing them without bickering or cliquishness. Personal relationships were robust enough to support the group spirit despite divisions of opinion sometimes of a fundamental kind.

This phase developed into the decision proper, that is, the attempt to restructure the course by mutual agreement. On the one hand, in the formal panel meetings, there was a general and prolonged discussion which sought to group the course topics into coherent and intelligible wholes instead of a rather random galaxy, at the centre of which was the notion of 'the child'. Other proposals were, (a) to start with and systematically exploit the students' own contemporary experience as recent school leavers, etc., (b) to introduce classroom techniques to the students immediately they entered College, or (c) to go out to schools for observation and build on that. At the same time that these ideas were explored in the regular two-hour panel meetings each week, an interpolated audio-visual aids course and the decision to split the groups in half meant that the hand-outs began to take on something of the function of study-guides, since the students now only had half the face-to-face contact with the tutor and were released for the other half to do individual work. This release of the students and their consequent demand for well-structured guidance was an

important step. But the crucial notion of choice within the topics still lay in the future.

From this point, about half-way through the year, the discussion began to be carried on at two different levels. In essence the older view saw the course as linear, the topics being linked together like wagons of a railway train. Discussion centred on solutions of a "shunting" kind; that is, seeking a more intelligible sequence of the traditional topics in the hope that learning experience for the student would be made more cumulative. The idea of coordination by lecture courses and hand-outs persisted. This conception of the course was so clear that it was even given a name: the "fish-fingers" approach. The "fingers" or blocks of teaching could either be put in different sequences, or alternatively thought of as spokes radiating from a core ("the child in all his aspects"). Various tentative diagrams of such patterns survive. The early documents and discussions embodied solutions all of which were brief abortive schemes; they permutated the topics of the traditional course without being able to break out of the rather narrow limits within which possible solutions were expected to lie. There was latent in this conception an attempt to impose the older knowledge content and associated attitudes on the new staff. It was a manifestation of resistance to change in a disguised form.

But a newer view was incubating. Alongside the formal discussions, a group of new staff began to work

systematically on a more radical proposal. There was first of all the problem of relevance. The traditional course, it was felt, led to learning at a superficial level, leaving to the varied capacities of the students individually, the task of forming a coherent and cumulative pattern. One of the new group of three, who came to be called "the ginger group", had experience of Craft training in relation to the work of the Area Training Boards for apprentices. From this source came the idea of the 'module of training', a package requiring the learner to undertake activities with given resources. The student would become responsible for his own learning, whilst the tutor acted as expert adviser, mediator, and provider of resources. Here was a new way of structuring the elements of the course; but how to put them together?

Another member of the sub-group had long experience of classroom organisation in Junior Schools which operated the integrated day. He introduced the notion of "work units" and the organisational pattern of the Junior School classroom with independent working groups. The tutor would become a manager of the situation "rather than a pearl-caster out at the front." The third member, whose research had been concerned with thought processes and the development of concepts began to construct some fully worked out specimen 'study units' and the group were ready to introduce their proposal as a pilot scheme alongside the next cycle of the reformed traditional course.

All this initial activity had been going on from

early in the spring term until Whitsuntide, at the rate of a meeting a week supplemented by informal discussions. Two points should not escape notice. One is that much time is spent discussing whether there is, in fact, a decision to be made; whether this is the occasion to make it. There is a differential degree of urgency in the minds of the participants, some holding that only minor modifications are needed or indeed possible, others that much more radical solutions must be sought without delay. The search for new solutions obviously calls for time and much energy; these will not be made available until the group as a whole is convinced of the case for a major decision. Little is usually written about this very important phase, presumably because in business the pressures from the market and the production technology act more quickly to bring the need for change into the open. The second is that it is difficult to evaluate possible solutions until the group has explored members' belief systems and found out how they perceive the situation. This surely goes some way to explain why, at the outset, the area within which solutions were expected to lie was so narrow; that is, the new solution was thought to lie not very far from the old traditional course.

The 'ginger group' had broken out of this narrow 'phase space' (to use Stafford Beer's term); the vital period could begin. When each of the respondents had given me his account of these preliminary developments, which came to a head round about Easter, I usually put the

question "Well, then, whatever took up all the rest of the time?" Many meetings followed this exploratory phase and represented a great acceleration of activity, indeed the really crucial phase of the decision. Now the meetings had a relatively clearly defined purpose, namely to decide between a somewhat revised traditional course and the much more radical 'ginger group' proposal which was still only partially formulated. In examining these meetings I had in mind the rather simple, though certainly fundamental, discussion of decision making in the work of March and Simon. Were the typical processes analytical and problem-solving or those of bargaining and persuasion?

From this point respondents were faced with the more difficult task of attempting to recall not simply a chronological sequence of steps, milestones as it were in the development of the decision, but the actual group processes which were characteristic of the meetings. Each naturally stressed the features which were salient to him; and what is an important turning point, in retrospect for one, is merely one more routine meeting for another. For one group of respondents a meeting held at Easter was of great importance. The vacation enabled it to last all morning, but also for the first time the Head of department attended for the whole meeting. The traditional linear sequence of the course was once more considered, but by now the outline of the 'ginger group's' alternative was available. According to one respondent the Head of department "saw the structure of the new plan right away,

and as he saw it so readily, it clicked." There was general agreement that at this stage any group within the panel might have produced a radical plan, "it just happened it was the 'ginger group'." This might be taken as offering some support for the view that when there has been a sufficiently successful period in which the members have explored each others minds, the old preconceptions limiting the "phase space" have been to some degree eroded. To have introduced a disturbingly new conception before this point would have been premature; but now the moment had come. My first view was that the appearance at this propitious moment of the man-at-the-top to countenance the discussion and add the weight of his approval to the emergent solution was very significant. It was agreed at this meeting that there could be no question of a pilot trial of the new scheme alongside the traditional course since this would divide resources, break up the pattern of responsibility and threaten the much-valued unity of the Panel, which rested, after all, on group responsibility. It was now an all-or-nothing decision.

However, and this is worth mentioning because of its significance for the methodology of enquiries such as this, when a draft working paper had been circulated amongst the respondents, another view was put forward. This held that the Easter meeting was not the turning point, and pointed to the fact that "we were still talking about hand-outs; no-one had a study-unit on the table". According to this view the cautious senior members of the panel had

resisted a radical plan by implying that the Head of department was not likely to approve a major change; but when he had actually appeared he had demolished the notion that he was a conservative figure and his attitude encouraged a general and energetic advance by the 'ginger group' which only later resulted in a worked-out proposal. For the holders of this second view a later meeting when a detailed study-unit was worked through was the most significant: "everyone went away convinced that they could do something like that". This got the Panel out of the exploratory phase and into a genuinely productive set of meetings in the summer term. The circulation of a working paper in research of this kind is valuable as feed-back and to get clearance from respondents; but it also promotes discussion and leads respondents to search their memories to provide grounds for any alternative interpretations they advance. In this case it provided important data which had not been mentioned at all during the initial interviews.

When respondents' attention was fixed on this important period, I raised the question whether "the decision of principle" took long to arrive at. Their replies showed clearly that it is artificial to separate decisions of principle, "shall we or shan't we"?from decisions about details and about implementation. The former can never be really firm until the latter have been worked through. There is a moment when a group can say "we shall!"; but it is only when the members have demonstrated to themselves that the new scheme is feasible in the actual detail of

the operations that they can bring themselves to a binding, not a false, consensus. This is not a sudden thing necessarily, taking place at one meeting; commitment emerges slowly and at different points for different people. Only one relatively sudden "conversion" was mentioned, and this took place, significantly, not at a meeting but as a result of a discussion between two members.

I asked all respondents to identify the 'ginger-group' and its supporters; also from whom resistance came and whether there were people in a neutral, uncommitted role. There was considerable agreement amongst the responses; and whilst I followed strictly the convention of not revealing to one informant information given in confidence by another, it was possible to check whether panel members saw themselves playing the roles ascribed to them by colleagues. I hasten to add that confidential information was in the form of personal interpretations and individual perception of roles and sources of conflict rather than of a 'private' nature. When I had got this picture I asked whether the 'ginger group' had to persuade the rest, and if so, whether there was any bargaining. Respondents naturally found this difficult. There was general agreement that the 'ginger group' had at least once close satellite who was almost one of them, and was balanced by the two senior members. The rest formed a middle group who leaned on the whole towards the new plan. The veterans had a great stake in the traditional course which

they had operated over a period of years; they carried responsibility as senior members of the panel, close to the Head of department and keenly aware of the logistic problems presented by the proposed innovation. To them the new proposal was a boldly conceived venture which promised to be more satisfactory but which, owing to its unforeseen character, was surrounded with anxiety. To one member of the 'ginger group' the basic process of the meetings was one of persuasion, "a weaning process" of the old leadership away from a false security in the traditional methods. To others in the middle it seemed very overtly a process in which the 'ginger group' persuaded the rest, but particularly the two veterans. To the veterans it seemed that they bore the responsibility for seeing that the scheme was practicable and that the logistic features had been properly attended to, particularly as 360-400 students were involved. They perceived themselves not as conservative in principle, but as being more realistic about the administrative consequences, and resolved to head off any over-ambitious initiatives. The 'ginger group', having convinced themselves, were in a state of contentment and equilibrium, those in the middle in states of partial acceptance ranging out to extreme doubt about their capacity to cope with the new teaching role, and the veterans in a state of cautious conservatism and some anxiety.

There followed "a rather turbulent period" when the existing hand-outs were worked through to determine whether

they were appropriate bases for study-units and whether the resources (film, tapes, duplicated material, access to schools, books, etc.) could be prepared ready for September. Many drafts refined the notion of the study-unit, and the concept of major and minor units emerged. The process was variously described. One respondent saw it as a process of reconciliation, adjustment and balance: it was necessary "to initiate people into the idea, yet keeping a safe distance"so that no premature decisions were forced through by enthusiasm alone before real commitment had been secured. There might have been an element of covert bargaining in this since the essentially linear sequence of lectures was retained at any rate as a transitional measure. "It was a sop they gave us" one of the veterans admitted. The veterans had always clung to the lectures on the grounds that it was a waste of expertise not to give them, and that anyhow, when the word got around that a good lecture had been given, for example to the post-graduates in College, the first year students asked for it to be repeated for them.

Another respondent denied bargaining processes but pointed to the parties' tendency to 'talk past' each other, rather than to each other. He saw this period as essentially one of persuasion by anxiety reduction. Everyone wanted to know "what will I have to do? How will it affect me?" and demanded a very detailed answer, not generalities. There was anxiety that people who had not been in College long enough to appreciate the complexity of the situation

should not attempt an overambitious scheme, especially a scheme which would suit the skills and experience of some but would require major reorientations from others. There was anxiety about how the students' work could be assessed. In one view this anxiety "and almost hysteria" was projected onto the whole group by a few. It was summed up as a greater realisation of "how long it takes to get a group of ten to shift"; all that could be said was that the group went on and on at the details until a working agreement was reached. Anyone was at liberty to include his own favoured area as a study-unit; so that all members could get a feeling of participation and importance, the chance to influence rather than just accept the eventual scheme.

The solution was a compromise which retained the lectures and presented the students with a repertoire of study-units within which they had a wide choice of content, method and conceptual level. This decision set the tutors free as it did the students. The latter could choose what suited their needs and views about relevance, and could rely on detailed guidance during their longer free time. A work folder provided the basis of assessment. The tutor could run his group on the model of the integrated-day classroom or in any way he found feasible.

This illustrates that what enters into the processes of negotiation and decision in such cases must include what the participants carry about in their heads - belief systems and ideologies about values and preferences, about

goals and priorities ranging at the extremes from the doctrinaire utopian to the resignedly defeatist; knowledge of the differential possibilities of various types of communication (ranging from simple speech to complex combinations of stimuli such as C.C.T.V., models, or learning programmes) according to the aspect of the subject that is being taught; aspirations and anxieties connected with the political, social and career systems within the institution. The model for such decisions is not that of business, but that of diplomacy.

In this chapter I have outlined the development of the major sub-units resulting from growth and differentiation. Each is largely autonomous. There is little movement of staff across boundaries. Within them each new member of staff must mark out his work area; his preferences and what he can offer, his seniority as well as the size, scope and growth rate of the sub-unit are all significant factors. But also external factors stemming from the world of the discipline and from the schools are also in play impelling sub-units at different rates to reshape their courses, adjust their staffing and change their approach to teaching. The total effect is to increase the likelihood of a variety of views within departments of any size. Hence, whilst there is a tendency for staff to think and act according to departmental interests, there

is the countervailing tendency, particularly in the area of general policy, for cross-departmental groupings to arise, composed of staff who share similar outlooks and preferences and define the situation in broadly the same way. Abiding coalitions of departments do not appear; but coalitions of the cross-departmental kind are latent on major issues, and it is in this way that College politics are best explained. The processes of accommodation by protracted negotiation examined in the latter part of the chapter are the means by which requisite integration is achieved and maintained in the sub-units, though the style in which they are conducted certainly varies greatly from one to another. Requisite integration at College level follows a similar course, though it is formalised by the procedures of the Academic Board, to which I now turn.

PART III

CHAPTER SIX

I shall begin with a brief overview of the developing phases of College government leading up to the establishment of the Academic Board, before turning to an analysis of its activities. This remains a difficult area of micro-sociological study. Though Rice (1968) described the activities of the Board at Ahmedabad, in general, as Van der Haas remarks (1967) business consultants and researchers may catch an occasional glimpse of the panelled doors of the boardroom but seldom penetrate beyond them.

In the recollection of the surviving members of staff there was no consultation even with the Deputy Principal before the war. Academic policy in the then small and financially precarious College was laid down and implemented in detail by the Principal, with an unreformed Committee of Management whose constitution went back to a Trust of 1862. The staff remained small enough to permit a highly personalised form of management until the early 'sixties. After the war the College was run by ad hoc informal meetings in the Principal's room; in as much as there was any consultative group it was an inner ring of senior staff which later emerged as the Steering Committee. The essential process was one of competitive lobbying of the Principal for resources and advantages by individuals. A new Scheme of Government was

sealed in 1964 and revised to take account of the Weaver Report in 1967. Staff were represented on the Governing Body by the Principal and Deputy Principal and two others; more University representatives were appointed and the clerical representation reduced. The Governing Body never intervened in the internal academic affairs of the College except in the matter of the size of the Academic Board.

Many major decisions about the mission of the College are made at national level as part of the Government and D.E.S. policy on higher education and teacher training and supply. Apart from finance, facilities, and the number of teaching practice places available in local schools, the major direct constraints on the College are national level decisions about the proportions of men to women, secondary to primary teachers, graduates to non-graduates, etc., in the teacher supply. Changes in these call for corresponding adaptive responses from the College which take the form of changes in the programming of operations. They amount to revised strategies for dealing with change in the environment. They emerge as timetable changes but are really changed rights of access to facilities and allocation of staff, time and other resources (who is to have how many rooms, students, services for how long each week). Such decisions may raise questions not only of how the rules are applied, but whether they are just and acceptable rules, and even who has the right to make or change rules.

Early steps

By the mid 'sixties one-year post graduate courses, two-year shortened courses for mature students, and large three-year courses were established, and the admission of women students and mature students increased the demand for Primary-orientated courses. Into this considerable complexity the new B.Ed. degree course had to be inserted. A new body, the Executive Committee had to be created to carry through the changes.

The only existing consultative body was the so called "Academic Board of the College", which consisted of all the staff, and only met at the beginning of terms for administrative purposes of the most formal kind. An Executive Committee of this Board was set up, consisting of all those in charge of subjects (a vaguer phrase than Heads of Departments so as to include some small departments) together with the occupants of certain offices in the College. Within this enlarged committee the old inner group of powerful Heads of departments was included; indeed the idea for such a committee in all probability came from them. The Executive Committee was called into being by the Principal and had no other formal standing. It need not have existed; for there was nothing in the then obtaining Instrument of Government of the College which demanded it. Membership was by nomination by the Principal. It had no defined powers. Competitive lobbying of the Principal in private by individual Heads of departments continued unchanged.

This first committee then was primarily consultative. Its essential function was to coordinate by agreement social and academic activities within the College, and to act as a forum in which proposals could be put forward and policies suggested. The Principal did not attend and was in no way bound by its recommendations. He retained the power of initiative, decided personally on promotions and the allocation of resources, and conducted negotiations with individual Heads of departments, separately. The effect was that those Heads of department who were active and energetic lobbyists could gain temporary advantages or promises of them; but when these became public, counter-lobbying resulted. It was a common feeling that the advantage lay with the last lobbyist before a decision was taken, and that in any case decisions were rather provisional, in that arguments from the next lobby might well lead to them being modified. Cyert and March (1963) point out that when decisions are taken serially, a....b....c....d, it is frequently the case that the details of decision a. have been partially forgotten or are not considered when decisions c. or d. are taken. From the point of view of the individual member of the organisation, policy thus appears to fluctuate so that there is increased incentive to maintain lobbying pressure in support of past decisions when a new decision appears imminent. The situation at this time was greatly influenced by the fact that new resources, buildings, staff establishments, promotion possibilities, and funds were

forthcoming every year because of the rapid pace of expansion and the large building programme. Anyone who felt aggrieved could reasonably expect redress in the next hand-out; satisfactions might have to be postponed but would be granted in time, provided pressure was kept up.

It was intended that the Executive Committee should meet monthly. In its first year it met thirteen times, initially for an hour but towards the end more frequently for nearly two hours. The Deputy Principal was in the Chair. The Principal attended four times though not always for whole sessions. Starting with twelve present, the committee soon rose to number 22 or 23, a third of the full time staff then numbering 64. It became recognised that Heads of department could send their nominee instead of attending, and interested parties such as the Librarian, the lecturer in charge of audio-visual aids, and the coordinator of the Primary Course began to attend. This loose structure and tendency to expand are indications of its mainly consultative functions. Since its main preoccupations were the modification and coordination of courses, there was a natural tendency for every interest to seek representation, to the point where the committee got out of hand. No interest in the College could afford not to be represented.

The last major peprogramming had been in 1960 when the first three-year course students were admitted. Then students had been enabled to begin their two academic

subjects in the first and second years respectively. For the purposes of selecting B.Ed. candidates all students had to begin both subjects in the first year. This involved a very great internal reprogramming as well as negotiations to retime teaching practices with more than two hundred schools spread over the whole south west region. Both resequencing and alteration of proportions in the course were involved and the decisions intimately affected every member of staff. The machinery of decision therefore relied on sponsored plans advanced by heavily interested parties who had special knowledge of the complexity of the situation. Plans were put forward by the English, Science and Mathematics departments. The latter department was responsible for the timetable; its revised plan was adopted. The plan had the backing of a "steering committee" which had been set up, consisting of the Heads of six large departments. It was virtually a Directoire instituted after the first attendance of the Principal at a full meeting of the large Committee. The plan originated from the academically orientated departments and reinforced the academic and secondary orientation of the College which had reappeared strongly during the Robbins period. It gave increased emphasis to the main academic subject and reduced time spent on classroom-orientated curriculum courses. Although a timetable which would work had been found, the plan was not in harmony with conditions in the environment and had maladaptive consequences; it led to excessive pressure

on the limited number of secondary teaching practice places and was in conflict with the views of the D.E.S. on the balance of training. A major task of the eventual Academic Board five years later was to attempt, against considerable opposition from the academic departments, to reverse this decision when the D.E.S. showed its teeth.

During the following year 1966-7 the existence of the Steering Committee meant that the larger committee did not meet so often; it met only eight times. Since it was not intended to meet regularly, it was significantly renamed the Ad Hoc committee, and intended to be convened as need arose. But its meetings were longer, now lasting for $1\frac{3}{4}$ to 2 hours, and more important, the Principal was much more frequently in the Chair. Attendance at meetings dropped to below 20. In accordance with the new conception most of the meetings during this year were one-topic affairs. Special committees with membership heavily overlapping that of the Ad Hoc committee met for purposes connected with B.Ed. arrangements and room allocations, so that the residual function of this latter committee was reduced to that of being no more than the most formalised of a number of occasional meetings of office holders and interested parties which were held as business arose. But business did steadily arise, and business which could not be conducted by the Steering Committee simply because it required the attendance, in order to secure consent, of a much larger number of interested parties over whom the

the Steering Committee had no authority.

At one of the later meetings the Principal announced that the Steering Committee was to be viewed as a permanent standing committee of the Ad Hoc committee. This clearly indicated that the smaller Committee was the important one and that its existence would mean a reduced need for meetings of the full Committee. The pattern of the previous year was thus virtually repeated. Business which required a widely representative body led to a series of large meetings mainly for coordinative purposes, culminating in a reiteration of the demand for a smaller effective committee and an indication of growing impatience with the large body.

But the presence of the Principal in the Chair of the large Committee was becoming accepted as normal, and decisions taken in his presence were accepted as binding. This inevitably dealt a serious blow to lobbying as an effective procedure since the deliberations were public and minuted. Also it could no longer be gainsaid that the Ad Hoc Committee, or some other casually assembled gathering of overlapping membership, was essential for the purposes of coordinating the working out and implementation of major programming decisions. Finally such a grouping carried tacit delegated responsibility from the whole staff to consider students case by case. Such decisions clearly transcended departmental responsibility, occurred frequently, involved the future professional career of individuals and, in the case of B.Ed. students, relationships

with the University.

The crucial lack of the large Committee was that of formal constitutional standing. The Ad Hoc committee was nominated not elected, and in competition with transitory special purpose committees called as the need arose, often at the Principal's initiative. The Steering Committee was an inner power group with the backing of the Principal but which functioned only sporadically, since, by and large, the sort of decisions that had to be taken could not be imposed on anyone (except by the Principal who did not operate in such a style) but only made to work by agreement of many parties. With the hindsight which two years of operation of the subsequently constituted Academic Board gives, it is possible to see that it is for this reason that no small inner group could effectively succeed. The Principal, in consultation with the Governing Body, was the appropriate person to take any major strategic decision involving relationships with the environment which had to be taken quickly. The type of decisions for which any representative group of staff, however constituted, would exist are essentially those of coordination of activities or allocation of resources, or academic recognition. The fact that the College is made up of relatively autonomous units, the departments, service sub-units like the A.V.A. and the Library, and interests such as the Chapel and the Wardens, all of which may well be profoundly concerned by the effects of internal decisions of the type mentioned

precluded a small inner committee.

The large Ad Hoc committee entered the third and last year of its life in September 1967. Internal signs of an evolution towards the functions later to be executed by the statutory Academic Board which was to succeed it appeared very clearly, and, since the Weaver Report was being embodied in legislation, the external pressures too were building up. The Committee met ten times during the year. After the first two meetings the Principal was in the Chair except for one purely routine meeting to review examination candidates. This was a major step forward, since decisions taken in his presence were binding; a second step was the quiet disappearance of the small Steering Committee. An unsuccessful attempt was made at the initial meeting of the large Ad Hoc committee to ensure that it met regularly, and that A.O.B. should appear on the agenda, so that items other than the major topic could be raised. However at the second meeting the Principal was present, though not in the Chair. He used the occasion to report on a new draft Constitution for the College which was being drawn up, and the Deputy Principal reported on negotiations with the University Institute concerning the proposal to ament the regulations under which students received their final Certificate. This is significant since it indicates that the Committee, though convened on an ad hoc basis, was now recognised as being in some way representative of the staff at large. Instead of the older announcement of such reports to the

whole staff at full staff meetings it was now being accepted that reports could be made to a committee representing the staff, even though not elective.

After this point the notion that the Committee met for special business was abandoned; subsequent meetings showed a pattern of business very similar to that of the eventual Academic Board. The Principal was the accepted chairman and an itemised agenda with A.O.B. was prepared, indicating that regular current business would be discussed and that for major decisions affecting the staff at large, this committee was the appropriate forum. Since the committee managed the negotiations with the Governing Body and initiated the various alternative plans for the electoral machinery and membership of the subsequent Academic Board, the Ad Hoc committee can be regarded as the constituent assembly preceding the elected and constitutionally grounded Academic Board.

The Founding of the Academic Board

We have seen that the long term reasons for the establishment of formally constituted Academic Boards in Colleges of Education was the growing complexity of the problems of internal management which resulted from rapid growth and differentiation. An important immediate cause was the publication of the Robbins Report in 1963 which, after examining the Colleges in the general context of

higher education recommended that they should have a greater measure of self government. The Government was not however prepared to go as far as the recommendations of the Robbins Report suggested. In the Binary system non-university institutions remained under the control of the local authorities. But the proposed form of self-government for the Polytechnics, which, as new institutions, had come under direct consideration in this respect, could not be denied to the Colleges of Education. In 1965 a study group composed of representatives of the Local Authorities, the Voluntary Bodies maintaining Colleges, and the College Lecturers met under the chairmanship of Mr.T.R.Weaver of the D.E.S. and produced a report in the February of the following year which became the basic document for the founding of Academic Boards in Colleges. Its main recommendations were embodied in legislation in 1968 (Edu No.2 Act). Several months after the Report had been issued the A.T.C.D.E. issued a memorandum pressing Colleges to draw up constitutions for Academic Boards in advance of legislation.

At this time St. Luke's was deeply preoccupied with the introduction of the B.Ed. degree, the reprogramming this entailed, and the continuous negotiations with the University which were involved. A major building programme was under way; expansion of numbers, the development of a post-graduate course and the admission of women students were taking place. The Governing Body had only recently been reconstituted, and its membership

had to be further revised because of the introduction of the B.Ed. degree. The new Instrument of Government which would lay down the broad functions and powers of an eventual Academic Board had not been received and scrutinised by the Governors. Whilst there was strong feeling in favour of an Academic Board, there was no pressure group which demanded urgent action. The Ad Hoc committee was functioning and providing a forum of sorts for practically all the senior staff. The atmosphere was one of buoyant expansion, well managed and satisfying. Finally it was evident that a considerable labour of planning would be required to set up an Academic Board. No action was seriously pressed for nor taken until after the revised Instrument of Government which was prepared in September 1967 became available to the staff early in 1968.

The essential requirement of the new legislation was that executive power in agreed areas should be added to the existing consultative and advisory functions of the Ad Hoc committee. By 1968 the other preoccupations of the College had ceased to be pressing, and in March of that year the Ad Hoc committee appointed a working party to produce working papers and schemes for the constitution of an Academic Board.

Any plan would have to take account of certain important limitations. The role of the Principal could not be reduced to that of a Vice-Chancellor, that is to a primus inter pares. He would quite clearly be the Chairman and would retain very considerable independent

influence outside the agreed areas, and the ability to exercise influence within them in his capacity as chairman. In his own view expressed in an Ad Hoc committee meeting, his position was half way between that of Vice-Chancellor and a purely authoritarian role. Secondly College Boards, unlike University Senates would not be academically autonomous since they were subject to decisions of the Governing Body, Institutes of Education, and the D.E.S. Finally whilst those in charge of subjects would be heavily represented, any Board so constituted as to be a Heads of department oligarchy would have been contrary to the spirit of the Weaver Report.

Plans were circulated and discussed by a meeting of the Ad Hoc committee in May 1968. As previous developments had shown, the Principal had never favoured a large Board, and had twice tried to set up a smaller inner group. The feeling of the meeting was against a small committee within the Board, and, as a large Board would be likely to lead to such a development, against too large a Board. Nevertheless, the proposal for a Board of 27 was recommended to the staff, no doubt because all Heads were represented on the Ad Hoc committee and could not resolve to jeopardise their own places.

The full staff discussed the plans and held a meeting in June 1968. The plan for a Board of 27 was not accepted, but two further plans were produced from the floor: (a) a modification of the faculty idea (5 faculty + 10 elected + 2 ex officio), and (b) a plan for Heads of

department to elect their own group of six, other staff six, and the two ex-officio, giving a board of 14. A show of hands revealed that the second of these was favoured by 34 to 29; 4 only preferred the scheme recommended by the Ad Hoc Committee. The two schemes were then formally elaborated and put to a ballot in July, having during the interval, been discussed by departmental meetings. The second scheme was again successful, elections were held, and a Board of 14 met at the opening of the new term in November 1968.

Under the Instrument of Government the Governors had a duty to establish an Academic Board and delegate powers to it. They took the view that six Heads of department (List A) and six other members of staff (List B) in addition to the two ex-officio members, the Principal and Deputy Principal, were too few and the proposed quorum of six was too small. The Principal proposed cooption of Heads of department but this was held to strike at the root of the clearly expressed staff opinion.that the Board should not be a Heads of department oligarchy; and also that it would signal that departmental interests were the basis of representation. After some danger of a conflict with the Governors the number on the Board was raised to eighteen (8 + 8 + 2) by a casual election ratified by a full staff meeting.

The first meeting

This meeting was held some days after the opening of term. There were thirteen items on the agenda. The first five items were covered in eight minutes, the Principal as Chairman leading the Board briskly through routine administrative business concerned with elections to other College committees, dates of meetings, and the report of a sub-committee on staff appointments and promotions. A few points relating to members of staff in line for promotion were brought out, but in general interventions by Board members were very brief; the Principal spoke for 75% to 80% of the time.

The next two items were dates for meetings of the College Board of Examiners, and of Heads of departments to consider the next cohort of entrants into the B.Ed. course. Discussion was largely confined within the administrative bloc consisting of the Principal, Deputy Principal and the Academic Registrar, with remarks by the former Secretary of the Ad Hoc committee who had some expertise in the matter of dates of meetings which were related to timetables of outside bodies, in this case the A.T.C. Again the bulk of the Board members were spectators. This initial business took altogether 18 minutes. It indicates a major routine function of the Board. In some respects a College divided into departments resembles a cluster of cottage industries whose raw material, the students, transport themselves, each individual circulating round four or five of the departments.

The major coordination of this flow is by the timetable which, though it is the outcome of major policy decisions, is sufficiently traditional not to need ratification by the Board. But the coordination of administrative activity, for example the academic recognition of students (admission, progress, certification), the timing of meetings particularly those involving other Colleges, the University or visiting examiners, routine promotions, and similar matters which require joint participation of several or all departments calls for regular and sometimes extraordinary meetings so that business can be settled economically in face-to-face conditions. Much of this could be done by a Heads of departments meeting, though this would lead to unnecessary duplication ahd the possibility of an inner committee. Though it means that a section of those present are spectators during such business, the Board is in this respect a managerial contrivance for rapid communication and coordination, and as such is kindred, perhaps, to regular meetings of Section Heads or Departmental managers, rather than to a Board Meeting in a firm. It should be noticed though that departmental control activities are not undertaken by the Board. Control of operations is the individual concern of Heads of departments as professionals, and is jealously guarded.

The next item involved a political decision and some important activity. For some time an ad hoc committee had been directing the build-up of an Audio-Visual Aids centre in the College, which employed a lecturer for about

half-time, a full time technician, and was destined to receive substantial sums for equipment. It would then give short courses to all students of the College as well as providing various facilities. The time had now come to put it on a formal footing. This "department" was something of a hybrid since though it gave courses, it also acted as a service department. Like the Library, it was of interest to all departments. A decision was quickly made to run it by means of a committee with membership interlocking with that of the Board; but discussion soon turned on finance. Where was that cash to come from? Who allocated it?

This type of discussion had an unfortunate history. Departments differed considerably in their requirements for equipment, stationery, materials, etc. Art/Design needed materials, Education needed stationery, Drama needed sets of plays. The details of departmental estimates were not at this time made public; some items of equipment are conspicuous in a way that services or stationery, which may be equally expensive, are not. There was almost inevitably some feeling that certain departments were more favoured than others. Not unnaturally part of this feeling discharged on the Senior Administrative Officer. The only element that had been made public, since it concerned all departments, was the Library grant which was proportionately divided among departments, not to the satisfaction of all parties. Even worse, a direct cash sum for books to meet the need of rapid expansion in the College had been shared

on the basis of departmental estimates which had varied considerably through lack of information and common policy. Those departments which had made immoderate demands had been well treated, those which had shown restraint had lost a valuable opportunity. Against this background, it is not difficult to see that the query about the source and control of cash allocation to the A.V.A. department touched on the politically sensitive spot indicated by Perrow, that of relative scarcities and the way they are handled. There was some aggressiveness and scapegoating of the S.A.O. It was suggested that he had too much personal power to decide allocations, and that such decisions should be made by the Board. This suggestion was a distinct threat to the powers of the Administrative bloc.

The Principal replied that the S.A.O. (not present) was only an intermediary who collated the estimates; the D.E.S. made the decision in detail. This system allowed the S.A.O. little personal discretion; but the Principal agreed that it"was all shrouded in a certain amount of mystery". It became clear that lack of public knowledge of departmental estimates was an important information loss. An indiscreet remark by an office clerk which seemed to indicate that there was money in a reserve fund was quoted to indicate that the administrative bloc had indeed some discretion. At this the Principal agreed that a percentage of all allocations received was kept

back to form a discretionary fund, and that this, with "a little of the magic word virement" ensured a margin of flexibility. He consented to an Academic Board watchdog committee if desired; but this was not followed up and he then applied a closure on this part of the discussion. This was a relatively clear cut example of a line-up of the Academic Board feeling out its limited powers in relation to the administrative side of the College. It was a not conspicuously successful demand for information and participation; something of a reconnaissance in strength. The principle of accountability to the Board had at least been raised and the political area of shares in resources was shown to be a central area of conflict. The discussion also indicated the role of the Board as a committee of grievances.

The discussion was donducted in the main by five major figures representing large departments on one side, and the administrative bloc of the Principal and Deputy Principal on the other. The A.V.A. lecturer, during this eleven minute aside, sat rather forlornly waiting for a chance to resume. When he did the A.V.A. matter took a further ten minutes; it was clear that the value of having Board members on the interlocking A.V.A. committee, was that they might ensure, if not control, at any rate public knowledge of resources diverted towards the new department. Of the 95 interventions in this episode, the Principal and Deputy Principal made 33 (35%), the A.V.A. lecturer 18 (19%) and the five major

figures 35 (37%).

This item, then, indicated tension between the academic side of the College and the administrative side. The next indicated differences of interest amongst departments. Once again it involved control of resources. The librarian had indicated that the library would have to expand, and had suggested stricter rules for book ordering. Both these suggestions affected the Mathematics department, whose space adjoined the library. From them the suggestion was made that space would be saved if many books were kept within departments. This encountered the difficulty that by D.E.S. regulations, books bought and retained in departments count as equipment. If it were possible to retain library books in the departments, money thus saved from the equipment fund could be spent on hardware. Whilst Drama willingly spent its equipment funds on sets of plays, Mathematics would have preferred to use a bigger proportion of its equipment fund for hardware. But such a procedure would deprive the librarian of effective jurisdiction over the books held in departments (delinquency in refusing to disgorge books being notorious), deprive the general run of non-mathematics students of the chance to use such books, and amount to an indirect subsidy to the Mathematics - or any other department which operated the system - out of library funds. This example indicated how different technologies of instruction lead to different interests among departments. The question of departmental libraries was put to the vote and defeated

by the narrow margin of 10 to 8. As Thompson and Bates point out (1957) academic institutions depend heavily on consensus; voting publicly signals divisions. This is certainly true of the College; this episode is a rare example of a conflict of interest resolved by a vote. The direct convenience of a department was reduced in the interests of general control. An increase in bureaucratisation (stricter rules) was accepted in exchange for more clear-cut accountability for the valuable common resource books. It is difficult to see how such control over departmental behaviour could have been achieved without an Academic Board. Substantially more members intervened verbally on this item than on the previous one: 18 as compared to 11. It may be speculated that this is because rule-making is a general concern.

As frequently happened, a short break followed the vote and tension was released in social chatting. Since the decision meant that the library would expand, it was necessary next to consider reorganisation of space in order to reassure the Mathematics department. The Principal made a $3\frac{1}{2}$ minute speech, in which he mentioned future building possibilities, the options available, the position of the Church as part provider of capital funds, the financial position of the College and the climate at the D.E.S. Various suggestions and speculations from the floor were made, but as the whole matter was not related to the agenda, discussion was guillotined. Here a crucial role of the Principal as the channel of information

from official sources outside the College is shown; such prior possession of information is the basis of much of his power, elbow room for manoeuvre, timing of initiative and consequent influence on decision. This aspect of the Chief executive has been well brought out by Miller and Rice (1967).

The remaining time was devoted to two significant items and a final half hour of routine small points. It was necessary to go through the report of an ad hoc committee which had coordinated proposals regarding the B.Ed. degree received from departments; proposals which had been invited by the newly constituted Faculty of Education of the University. Since the effects of B.Ed. courses are felt by all, participation in discussion was again more widespread. The other item returned yet again to the matter of resource sharing. At a general staff meeting at the beginning of term there had been sharp exchanges in the matter of secretarial and ancilliary help. Once again different technologies led to problems. Science and certain other departments had technicians as well as a share in secretarial help; the rest only had secretarial help. The crux of the discussion was the extent to which departments should be compensated by extra secretarial help if they had no technicians. The triggering factor had been the achievement of a technician by the Geography Department, a case marginal enough (in the sense of not being a Science) to raise the question of principle. Animus was very evident in this discussion

at the Board; the solution was to set up a Heads of department Committee to go into the question. Since secretarial services were provided and supervised by the S.A.O. there was further sniping at the administative group, and an attempt was made to suggest that secretarial help was indirectly an academic matter, and thus subject to some jurisdiction by the Board. The discussion degenerated into grumbles about the timing of buffet lunches in the Staff House, also a matter under the indirect supervision of the S.A.O.. On this unedifying, but indicative note, discussion was cut off.

The remaining 31 minutes was devoted to the question of renaming certain departments, Art/design instead of Art/Craft, and Religious Studies rather than Religious Education. The latter was a somewhat delicate matter in a Church College, as having theological implications, and took time. Other matters were minor A.O.B.

The foregoing description gives some indication of the general atmosphere of the meetings in 1969-70. In the academic year 1969/70 there were ten full meetings of $2\frac{1}{2}$ hours or longer, the longest lasting 3 hrs. 25 mins. In addition there was a short half hour meeting connected with staffing of the Mathematics department. Staffing is a most valuable resource, and it is a measure of the feeling roused by this issue that in the short half-hour meeting there were 210 interventions. In general however, the mean rate of interventions was about 150 per hour,

generally in the form of short chains of dialogue among a sub-group of the Board to whom the point at issue was particularly relevant. Speeches, as opposed to discussion were rare, limited to expository statements by the Principal of information recently to hand, or to statements.of their case by speakers seeking a major decision of the Board. Usually matter which required explanation in detail was circulated in the form of duplicated sheets, through which the Board was led by the originator. Discussion, as the rate of interventions indicates, was carried on at a fairly brisk pace, minor points disposed of rapidly, and the way left open for the major issues to be argued out. The seating pattern rapidly settled down to regularity. One long side of the rectangular table was occupied by the Principal flanked by the Deputy Principal and the Registrar who was Clerk to the Committee. This group was usually joined by the former secretary to the Ad Hoc committee who was something of an authority on previous decisions and procedure in virtue of this experience, and as one of the more active speakers amongst those who were not prominent Heads of department, had a well defined role on the Board. Opposite on the other long side sat the Mathematicians with their very active Head of department who was on the point of retirement,but clearly resolved to see the Board fully established before going. Here too sat the Head of the English department, another large interest, together with R.E., Music, and Art. The opposite short sides were

occupied by the Educationists usually with a Geographer, and the Science and P.E. groups respectively. Since the Science and P.E. groups were geographically closely located in the College, and both had a history of troubles with the Education department, this plan vaguely represented internal groupings, though if significant (which is doubtful) was probably more so at a psychological than at a political level.

During 2027 minutes (33 hours 47 minutes) of discussion, course revision occupied 590 minutes (29%) and resource allocation and sharing 576 minutes (28%). These were overwhelmingly the dominant issues. Other significant issues were the religious matters concerned with the Chaplaincy and patronal festival, 146 minutes (7%), Academic recognition of students 129 minutes (6.5%) and the domestic matter of administration of the Staff House 89 minutes (4.5%). No other single issue reached the 2% level.

Following H.I.Ansoff (1968) an attempt was made to classify discussion more finely by the use of the categories "strategic", "administrative" and "operating". "Strategic" discussion is concerned with relationships across the boundary with the environment, the "mix" of students produced to comply with changing requirements of the market, and hence with courses. The test question here is whether the discussion involved the idea "What business are we in?", e.g. to produce more primary teachers, more post-graduates, more students qualified in

say, Environmental Studies, or B.Ed. students. "Administrative" discussion is concerned with structuring resources for maximum performance potential, that is to say, with organisation, the structure of authority and responsibility, work and information flows, and location of facilities, as well as the acquisition of resources, finance, etc. Finally "Operating" decisions are concerned with maximising the efficiency of the conversion process, the day to day work of the College, and thus with resource allocation, work programming, academic recognition, etc. Table 18 gives the distribution.

The method of classification is not wholly satisfactory principally because some items cannot be unambiguously assigned to one category; a subjective decision is called for, which would lead to difficulties in coding discussion items in a replication study. A more detailed description of the classification, with examples, is given in Appendix E. The most that can be said is that in the course of the study no more satisfactory method of classification presented itself to the author, and that the majority of items can be readily classified by this method which is at any rate simple. Since strategic decisions include course revision, and operations includes the allocation of resources, and academic recognition of students, the table repeats the foregoing judgement that course revision and allocations are the major events whilst showing the fluctuations from meeting to meeting.

Table 18 : Distribution of business in Academic Board Meetings 1-11, 1969-70

Date	Administrative		Operations		Strategic	
	mins.	%	mins.	%	mins.	%
4 Oct.69	44	25	99	56	33	19
1 Nov.69	93	50	44 (+100)	24	47	26
29 Nov.69	17	9	122	67	44 (+109)	24
10 Jan.70	15	10	64	44	67	46
2 March 70	0	0	30	100	0	0
14 March 70	6	3	0	0	174	97
21 March 70	6	3	193	95	5	2
18 April 70	13	7	124	65	53	28
2 May 70	6	4	26	17	122	79
6 June 70	80	48	78	47	9	5
26 June 70	40	23	50	29	84	48

Total:	1788	(29 hrs. 49 mins.)
	+ 239	(sub committees)
	2027	(33 hrs. 47 mins.)

Inspection of the distribution of interventions shown in table 19 indicates that there is a close relationship between the position held by a member in the College formal structure and the frequency with which he intervenes in discussion. If members are ranked, i.e. Principal, Deputy Principal, then list "A" members by size of department, followed by list "B" members by seniority on the staff list, and this ranking correlated with their

Table 19 Academic Board Meeting 1.
Distribution of interventions

											N.	%
Principal	1	3	4	1		2	4	3	3		123	22.8
Dep. Prin.	3	2	2	1		1	2	1	2		52	9.6
Ac. Regr.		4					1	1	4		15	2.8
List A.												
Hd. Edn.	2	2	3	2			1	2	4		45	8.3
Hd. Maths.	1		3	4	1	1	1	2	2		35	6.5
Hd. P.E.	3	7	7	7	4	4	7	3	1		54	10.0
Hd. Eng.	2	2	2	7	2	7	7	3	4		42	7.8
Hd. Art.			1	1	3		2	2	3		22	4.1
Hd. Bio.		2		2			1				8	1.5
Hd. Chem.		1		1			1	2			8	1.5
List B.												
Rep.(Rel. Studies)		1	1	2		2	2	2	1		25	4.6
Rep.(P.E.)				3		1			3		7	1.3
Rep.(Math)		1	3	4		1		1	2		16	3.0
Rep.(Math)			1	1			1		4		7	1.3
Rep.(Geog)				1		2	4	3	1		16	3.0
Rep.(Hist)	2	5		2			5		4		23	4.2
Author				4							4	0.7
Rep.(Edn)	3	1		4		2	1		2		13	2.4
Visitors												
Rep. A.V.A			4								20	4.6
Dep. Librarian				1							5	
											540	100

7 mins. Items 1-5
16½ " Meetings, dates etc.
51 " A.V.A.
95/97 " Library
100 " Promotion details
115 " Library building
134 " B.Ed. Proposals
149 " Secretarial help
180 " Final items

ranking by frequency of intervention, the result (Spearmans rho) is .74, significant at the 0.01 level.

The pattern of business 1969-70 (First Year)

(a) Ancilliary staff and estimates

The author attended the meeting of Heads of departments which had been called to discuss the sharing of ancilliary help, as an observer. This was an occasion for a confrontation between the departments and the S.A.O. face to face, and for interdepartmental squabbling. There can be little doubt that exclusive possession of the services of ancilliary staff has symbolic as well as utilitarian aspects and arouses feeling beyond the cooler questions of fair and equitable distribution. It also presents an opportunity for giving vent to the mild hostility that exists between Academic staff and the S.A.O. representing the administration. The Academic Registrar had produced an independent survey of ancilliary help in preparation for the meeting, but the Science department and Education department had also produced documents pressing their cases; the Science department's for the "zoning" of help, by faculties, the Educationists' stressing the large size and manifold responsibilities of their department, and its complete lack of technicians.

The meeting took the form of a not wholly friendly interrogation of the S.A.O. by senior departmental Heads

under the control of the Deputy Principal. Over the whole meeting the Deputy Principal made 20% of interventions, the S.A.O. 24%, and four heads of large departments 29%. In what amounted to a cross examination by two Heads, the S.A.O. gave a detailed exposition of the ancilliary staff establishment, indicating that the low wages attracted few applicants of high quality and that the D.E.S. would not sanction more staff. This information, and the discharge of feeling, led to a more realistic atmosphere, and the proposal for a "pool" system, which the S.A.O. offered to organise and supervise. He added some shrewd criticisms of the inability of staff to arrange a consistent flow of clerical work, and hinted at the misuse of clerical help for private typing by staff. The proposal was put to a vote and carried virtually unanimously, possibly indicating the symbolic nature of the issue; the confrontation had cleared the air and a social release followed the vote in which the author's presence and note taking activity were commented on.

The issue remained alive, both sides entrenched; but there was no alternative to the "pool", and mutual criticisms had been aired. At the cost of a slight increase in bureaucratisation a more workable system had been set up, and more information had been made available; power over scarce resources had been retained by the administration rather than handed out to sub-units. Bargaining gambits, the "zoning" proposal and the attempt to trade off technicians against clerks, failed completely.

There were just too few of this particular resource to be shared; what there was had to be held centrally.

A fortnight's trial of the new system led to a report to the next Academic Board that the typists, having been used to working with specified members of staff, disliked the impersonality of the "pool". The topic was rapidly treated on the Board, the S.A.O. being left to arrange work as amicably as possible at his discretion. This strengthens the impression that once feelings had been discharged, the precise machinery set up to meet the practical problem was of less moment; the affective aspect of the situation had been improved, but the power situation was unchanged.

Pressure on the administrative bloc was maintained when, by reference to the minutes of the previous meeting, the question of participation by the Academic Board in the financial administration of the College by supervision of the estimates was raised again. The Principal again explained that departmental estimates were merely coordinated by the S.A.O. and submitted to the D.E.S. with comments. They were returned with the inevitable cuts. Senior staff pressed for a reduction in secrecy: publish the figures and the cuts, and let justice be seen to be done. This was resisted on the ground that the sharing out of cuts was better left to the Principal's discretion rather than done on a strictly proportional basis. Heads of department, it was argued, always over-estimated, and some estimates appeared to be unreliable

since, for example, charges for maintenance of equipment varied considerably between departments. In any case, the Principal argued, a committee of the Academic Board already existed for this purpose - himself and the S.A.O.

This somewhat ingenuous argument was countered by the point that the sub-committee of two had no secretary and published no figures. The demand was principally for information. No one wished to add a further step in the long process of preparing the estimates and it was realised that a wider committee of the Academic Board would have axes to grind; nevertheless, information should be published since policy depends on figures. With some reluctance and the remark that the University Senate does not consider estimates, it was agreed that a paper on the estimates would be prepared. During this episode 50% of the interventions were made by the administrative bloc of the Principal, Deputy Principal and S.A.O. who was present, 19% by one Head of department and the remaining 31% by nine other speakers.

The grumble about staff house catering was then resurrected and enlarged to a general criticism about lack of facilities, particularly for entertaining groups of students to coffee. Apart from being again a largely symbolic issue through which feelings that had built up could be discharged legitimately, the problem here was a delicate one of boundary definition, since an autonomous Staff Club enjoyed facilities provided by the S.A.C. The S.A.O's case was that the staff should pay for services

and provide a steward for their club (a solution which was far too costly to be entertained); the staff representatives demanded some form of appeal procedure against arbitary decisions by the S.A.O. about the provision of services. A proposal for a small committee was put to the vote and carried; tension was immediately released in a coffee interval. The functions of the new committee were wholly unclear; there was certainly no possibility of arbitration between the staff and the S.A.O. As before, the feelings had been worked through, and the decision was largely symbolic.

After this third meeting dissention between the staff and the S.A.O. was not again in evidence during the year. The S.A.O. was present at the seventh meeting when the matter of ancilliary staff was again discussed. Technical assistance was reviewed, and an unsuccessful proposal was made that technicians should be shared. This was of course resisted by those possessing the exclusive services of technicians and the matter was shelved on the understanding that if the D.E.S. could be persuaded to increase the establishment for technicians the Board would make the decision about how they would be shared.

(b) Staff appointments

Tension amongst the departments however continued to centre on sharing resources. At the second meeting it was

announced that the D.E.S. had insisted on a cub-back of student admissions from 1260 to 1180. This meant that the academic staff would have to be run down by seven or eight. This would have affects on promotions, on the gaining of sabbatical years, the staffing of the Outpost and the post-graduate course, as well as on individual departments. At the third meeting the Geography department put forward its case for a replacement of a member who had resigned. As the History department had already accepted the loss of a member, the Geography department's case was hindered by the argument from parity, since the two departments had traditionally been similar. A long discussion took place concerned with the involved question of how any department could justify its demands for staff by statistics of numbers of students and contact hours. Since a department can always make do with fewer staff by reducing the scope of its courses and increasing the size of teaching groups, such an argument inevitably reduces itself to one about the technology of instruction. Any analytical solution would require agreement on some conventional unit in terms of which departmental work loads could be fairly assessed. Despite very considerable efforts it had proved impossible to secure agreement on a "points" system. Consequently a solution had to be found on other grounds. Though the Geography department had put forward a strong and fully documented case, a major transition was in gestation which might well lead to a reduction in the work load of

the Geography department since "B" subjects would disappear. Moreover the new department of Environmental Studies which was operating on a provisional basis, overlapped with Geography, and might also lead to a reduction in demand for Geography. On these grounds the application was refused. The problems of the College in adapting to a sudden change in the environment came clearly to light in this example. An imposed run down of staff had happened to hit a small department first and had unbalanced it. Anxiety to keep flexibility and not set a precedent made it difficult to cushion the blow. Whilst, as will be seen, the inherently simpler Chaplaincy problem was solved by a team approach, departmental rigidity and the absence of an overall staffing policy stood out starkly in the case of the Geography department. A team approach, or the notion of staff sharing were hardly mentioned as possibilities, though a joint appointment, a rather unlikely possibility with a poor history in the College, was briefly considered. Significantly, the troubles of the Geography department were partially avoided later by the appointment of a part-time member of staff without reference to the Board; an indication of the survival of other patterns of power and channels of communication than the official ones.

The short fifth meeting was entirely devoted to Mathematics department staffing. By chance the Head of department and one of his staff indicated that they intended to retire. The department's case was the strong

one that they intended to ask for only one replacement, despite the fact that the course revision was likely to increase the demand for professional courses in Mathematics. The Principal made no attempt to conceal his sympathy with this case and had indeed already placed an advertisement in the press when the meeting took place. The meeting began with some divergence since departments, led by the educationists put in demands for increased staff, and sought to play down or contradict one another's arguments. The real question was whether or not to postpone decision until after the proposed course reorganisation had been further clarified, bearing in mind that this had been a strong argument leading to the sacrifices of the History and Geography departments. A Geography department member, and the Head of Art/Design who was chronically short of staff and facilities, urged waiting, and raised the question of whether the Academic Board appointed Heads of department. Since the meeting, being an extraordinary one could not be prolonged, the Principal appealed for a decision, and the matter, significantly, was pressed to a vote. The Mathematics department got their replacement by an 11 to 2 majority. After the vote one of the Heads of department deplored the wrangling and bargaining approaches to the problem of staffing, and it was pointed out that the new Environmental Studies department could only exist by some more integrative means such as the sharing of staffing. But the underlying problem of non-integration was reaffirmed

when the question of help with Mathematics from the Science department was mentioned: this was declined by both sides.

In this atmosphere the request of the A.V.A. department for a shared member of staff was foredoomed when it arose at the seventh meeting. However the discussion contained the first hint of a more organismic solution when one of the arguments against the appointment was that it would demonstrate that the Board "did not believe in the ability of colleagues to learn (i.e. new tasks)". The notion of a staff resources survey to provide the essential information for rational exploitation of latent staff skills was mentioned, though not seriously taken up. By contrast at the ninth meeting it was agreed without a vote that a member of the Education department who was leaving on promotion should be replaced principally on the grounds that the new courses would bear heavily on the Education department, being professional in character, and because the post-graduate course which was largely staffed by the Education department was to be increased from 40 to 90, a matter of considerable prestige for the College. It was agreed that the new appointee should if possible be knowledgeable in the professional aspects of Mathematics teaching, a provision which was not eventually met. This was also the occasion for a brief comment that the new policy was very hard on small departments in the matter of the granting of sabbatical years to their members. Curiously, too, after a long period of high stability in staff turn-over, a number of staff members left in a short period,

causing the Principal to remark that we were reducing rather too rapidly; "it's becoming a bit wholesale".

At the tenth meeting the Drama department requested a part-time lecturer or assistant lecturer owing to some rearrangement of responsibilities and the extra demands on the department expected by the Closed Circuit Television unit. The usual arguments were once more heard. It became evident that the Board had no information about part-time staff and thus was hindered in making an equitable decision. Since by this point greater formality had been agreed on in the matter of recording decisions, two resolutions were minuted, one requiring that all future demands for staff should be fully documented so that a decision could be taken in the light of evidence rather than argument, and secondly that information about part-time staff should be prepared for the Board by the S.A.O. and Heads of departments. The Drama department was allowed a part-time member of staff for one year only.

Apart from money, staff are the fundamental resource of an educational institution. Changes in staffing are a powerful adaptive mechanism; and, since staff leave more frequently than buildings or major items of equipment are replaced, this mechanism comes into play more often. Each occasion is potentially one in which power relationships may change, perhaps permanently, and with them each department's potential for controlling the sharing of all other resources. Inevitably therefore staffing is the central focus of political activity. The more members of

departments are specialised and regarded as having life tenure in a particular aspect of the work of one department, the more politicised must be the argument when it arises. At present advanced teaching in higher education depends on a high degree of specialisation. A judicious staffing policy is one which produces the best available compromise between specialisation and adaptive flexibility. Such a policy depends upon maximising information about staff skills and deployment, and encouraging broad participation in decisions about the appointment of staff so that many interests can be weighed. This is an area in which everyone has a vested interest; but the history of long lasting educational institutions suggests that the overriding interest is that of adaptability to changing conditions. Contention and wrangling are an inevitable part of the political process. Broadly the decisions arrived at seem to be in keeping with the new policy imposed on the College from outside, that is, strengthening the departments responsible for the professional courses, whilst holding over decisions involving traditional main subject departments, even though this meant penalising smaller departments and rewarding larger ones.

(c) New sub-units

The associated issues of the creation of the two

new sub-units, A.V.A. and Environmental Studies may now be quickly summarised. Both were set up before the staff squeeze. We have seen how the A.V.A. department was refused staff but offered the possibility of educating existing staff members to the point where they could staff its courses. The case of Environmental Studies was rather more complex. The course had been running for a year as a pilot "B" level course using staff from a group of departments. At the second meeting of the Board, before plans for course reorganisation had reached an advanced stage, the Lecturer in charge asked that Environmental Studies should be made a Main subject, as well as a "B" subject. The difficulties about staff were raised, as well as the impact on Geography and problems concerned with finding the teaching practice places. The decision was deferred to give further time for thought. The matter was raised again at the ninth meeting, and a major attempt was mounted by the Head of Geography to prevent the setting up of the new department on the grounds that its work largely duplicated that done by geographers and others; and that the way in which the negotiations for the new department had been carried out were open to criticism. Very strong feelings were voiced, since the new plans for course reorganisation made it clear that the new department must either have full stature or be reduced to the condition of giving optional electives of one-term duration; there was no half-way stage. A sub-committee of four, including the Head of the Education

department was set up to prepare a report on the matter. At the eleventh meeting the sub-committee reported. The Head of the Education Department had resigned from it, on the grounds that the committee had been lobbied and negotiations had been pressed whilst it was sitting. The other arguments were repeated by the same parties, but staff appeared to be available to teach the subject. The matter was pressed to a vote and Environmental Studies was admitted to Main subject status with several abstentions and two dissenting votes.

This was a relatively straightforward example of resistance to change, based on the fact that a new department would be a further unwelcome competitor for resources, and was a clear threat to the established Geography department. However the development of new departments is also an important adaptive mechanism for educational establishments, and no new department had been set up since the Education department had appeared in the late 'fifties. Since only two people voted against the motion there was clearly an unwillingness to refuse the general principle of a new department except on the part of the directly threatened Geography department. At the time of writing, however, the question of resources for the new department had not arisen; when it does arise a clearer political line up should be revealed.

The last matter in the sharing of resources sphere was that of space. In the case of the projected new building, a committee outside the Board was set up to study

the allocation of space, but the views of the Principal who had an unrivalled experience of rebuilding and the reallocation of space, were likely to prevail. Similarly when the feeling of students against residence made available a hostel it was decided to use it as a centre for the post-graduate course. This again provoked a considerable wrangle, but the needs of the prestigious post-graduate course were persuasively pressed by the Principal. Building and space allocation were evidently one of the chief specialised roles of the Principal. In effect this matter was solved by unofficial bargaining off the Board, the Education department receiving the hostel space in exchange for its space in the new building. This arrangement was not brought before the Board for ratification.

(d) Course changes

We have seen that a precipitating factor in the setting up of the committee which preceded the Board was a major programming decision involving courses. Major decisions of this kind had followed one another at intervals of a few years; the change to a three year course in the early 'sixties; the introduction of degree work in the mid'sixties; and finally the course revision of the 1969/70 session which was the biggest single item of business. The previous decision and the general

tradition of the College had led to a situation in which three-quarters of the students opted for a teaching practice in secondary schools. With the rapid growth of the College secondary places could not be found on such a scale. Since students on the one, two and three-year courses go on practice at different points in the year, it was becoming obvious that the timing of practices would have to be modified, so as not to swamp the schools in the spring and summer terms. Also, since students ought not to undertake a practice in a primary school without prior professional preparation in dealing with the junior age groups, an attempt to prepare more students for a primary practice was necessary. This would inevitably involve a very general change of emphasis in the College course as a whole. A paper prepared by the Head of the Education department and the tutor in charge of Teaching Practice introduced the topic at the third meeting. After the basic problems had been explained it became apparent that a separate meeting would have to be called to deal with the two related matters of course revision and teaching practice.

The urgency of the situation was increased at the special meeting when the Principal pointed out that the D.E.S. would not tolerate for much longer the heavy secondary orientation of the College. At the national level Colleges cater overwhelmingly for intending primary teachers; the D.E.S. had laid down the balance of training as 75% primary and 25% secondary, and intended

to enforce it. A London College which had also traditionally had a strong secondary bias, had been compelled to modify its course on moving from London to the South West. "There will be a show-down; we cannot wait for it". It became clear that there would have to be a return to a professional course in basic subjects (R.S.; English; Mathematics) for all save the Science and P.E. students, who were secondary by definition, despite the fact that, given the previous staff recruitment policy, the expertise needed to support a primary orientated professional course hardly existed in the College on anything like the necessary scale. A committee was set up to prepare a plan, and staff were asked to offer suggestions.

The fourth meeting of the Board which followed two weeks later was a flat, workaday affair without major issues. The atmosphere had changed somewhat however. A well-informed Board member remarked to the author that the vested interests had had a chance to have their say in the interval. There was evidence of back-pedalling in the matter of the urgency and scope of the intended course changes. The emphasis was now simply on "rather more Junior orientation": "That's all we want, rather more; but nothing revolutionary". A few schemes could be drafted and discussed in a leisurely way within departments ready for a decision next term. A general feeling that the Middle School 8 - 13 age group represented a useful compromise area emerged. Course revision occupied fifty

of the first sixty-five minutes of this meeting; all the remainder of the meeting was occupied with minor routine items. The sixth meeting was entirely devoted to course reorganisation. It was clearly a crucial meeting and attracted the unusual number of eight spectators. There was no acrimony, no voting, and a generally calm atmosphere of rather resigned acceptance of the D.E.S. policy, helped by the fact that it could not be quickly implemented since the 1970 intake had already been accepted under the old dispensation.

An investigation into College courses required by the D.E.S. was being mounted by the Area Training Organisations (The University Institutes, etc.). The former secretary to the Ad Hoc committee was elected to be the College representative at the enquiry. The Religious Studies department put forward the view that a two day conference for all staff should be held to discuss the principles of course reorganisation. It was stressed however that the Board existed to take decisions even though they could not be forced upon anyone. The Head of the Education department remarked that discussion of this sort had been going on in the College for nineteen years more or less continually. The keynote was set by the Principal's remark that the object of discussions was "to improve the course with as little alteration as possible". This excluded some more radical schemes with the result that the scheme prepared by the Head of the Education department supplemented by a Mathematics department scheme

to deal with the associated problem of teaching practice places became the centre of discussion; both had been fully canvassed in advance of the meeting.

In a brief historical introduction the Head of the Education department pointed out the pendulum swings between improving the professional aspects and improving the academic aspects of teacher training that had taken place since 1913. What could be done with the present staffing was limited - "Just a change of balance, nothing too extreme; we're much too (secondary) biased." A change in future staffing policy was called for, and a survey of staff skills not now being fully exploited. Discussion moved through the topics of replacement of "B" subjects by Electives, present and foreseeable student flows in various "B" subjects during the run-down, and the general problems of deployment of staff and organisation of the Electives. From the moment that choice had been narrowed to the fully developed Education department plan, the decision in principle appeared to have been made. Discussion turned wholly on technical matters of implementation and the attempt to foresee how the new plan would affect individual departments. The consequences for departments however could not at this stage be foreseen; and since the implementation would not start until a further eighteen months had passed, i.e. until the September 1971 intake, there was a great loss of urgency. Major lines of policy were agreed without much enthusiasm or hostility, with a conspicuous attempt by leading speakers

to keep the temperature as low as possible. Conflict would be over the "say"/shares aspects of the plan when it began to be implemented, and was thus deferred to the future. At later meetings progress reports were received concerning the planning of the new courses, and information on the effect of the new arrangements on the B.Ed. courses was made available, but all these were of a routine nature.

(e) Minor issues

Of the minor issues, the matter of College worship and the patronal festival took the most time. The impending resignation of the Chaplain to take up parish work would leave a position which would not be filled, owing to the run-down of staff. The position of Chaplain is not an easy one. The two former Chaplains were unwilling to take on the position since they now had full-time duties in the College. Attendance and preaching at the patronal festival which was held annually in the Cathedral, had not been very satisfactory. Both these topics were handed over to a special meeting. Given the differences of emphasis between the Chapel tradition of orthodoxy and the Religious Studies department's tradition of progressive theology and orientation towards schools, serious discussion was inevitable. But the outcome was predictable since the orthodox group could not staff the

Chapel services without a full-time appointment. The meeting was attended by eighteen staff and a smaller group of students, but only one Head of department (Music) apart from the Head of Religious Studies. All clergy were present. Although arrangements for a team Chaplaincy and experimental rather than prayerbook type services were inevitable, this step marked a further wearing away of tradition, and was marked with expressions of regret by the leader of the orthodox group, a former Chaplain. Inasmuch as Sunday as well as weekday Chapel services would now largely be conducted by laypepple, and the Head of the Religious Studies department took over the organisation, this was a move towards integration and an organismic step. However it was forced by circumstances rather than deliberate, and in a relatively minor aspect of the organisational life of the College; too much ought not to be made of it. The matter of the Patronal Festival was more confused since the views of students and the need to make arrangements long in advance with the Cathedral were involved. It was decided by vote that academic year should open with a Chapel service; and that a decision on this was within the province of the Board since it involved the allocation of time during the very difficult days at the beginning of the year when many interests competed for it. But the matter of a Cathedral service was considered to be outside the jurisdiction of the Board, to be left in the hands of the clergy. The essence of the matter was an attempt to

preserve religious occasions which cut across the regular time allocations of the College, and were attended only by a small minority. Where the important resource of teaching time was involved the Board retained its power; but it was evident that the chance to pass the second decision to another body was welcomed.

The pattern of business 1970-72 (Second and Third Years)

There is considerable continuity in the pattern of business of the Board. It is possible to summarise the work of the next five terms quite briefly.

Some changes in the membership of the Board occurred at the opening of the year 1970-71 as those members elected with the shortest terms of office completed their service. Two Heads of department retired from the Board and were replaced by a Science Head and the lecturer in charge of the Professional course, an educationist. The retiring members had both been forceful speakers representing the large departments of Mathematics and English. The power balance changed somewhat in favour of the Education department, now with four representatives, and interventions from these rose from about one fifth to about one quarter of all interventions. The Administrative bloc continued to make between a quarter and a third of all interventions; the Principal remained overwhelmingly the major speaker in his capacity as Chairman both controlling

the business and reporting developments about which his position gave him prior knowledge. Table 20 shows that regardless of the topics under discussion, over the whole period the pattern of individual interventions is remarkably stable. It is noteworthy that the number of non-members attending the meetings steadily increased; and as permission to speak from the floor was readily granted, interventions from this source increased too. This is an important safeguard without which Heads of department might have shown much less willingness to stand down at the end of their term. Interventions by students rose slightly but remained a very small percentage of the whole.

By the beginning of the academic year 1970/71 growth had clearly ceased. Staff turnover remained low, the establishment for staff was unaltered, no new buildings were under way; hence there were no substantial resources to be allocated. Allocative business fell off from 23% to 13%. The Education department was able to achieve a technician, the result of a long campaign; some internal space was reallocated to meet the needs of post-graduate students, and a fuller statement of the annual estimates was made by the Bursar, though details of individual departmental spending was not revealed. Staffing remained the central area of resource allocation to some extent bound up with the position of the new sub-units such as the A.V.A. section, which sought a larger slice of the staffing cake. More seriously the succession problem

Table 20: Academic Board: percentage interventions by individual members during eight terms

	1969-70										
	1	2	3	4	5	6	7	8	9	10	11
Principal	22.8	22.8	30.4	18.9	17.1	16.0	11.2	17.7	16.9	-	15.5
Dep.Principal	9.6	11.4	11.4	8.4	10.5	9.1	17.4	7.5	5.8	9.6	11.2
Acad.Registrar	2.8	4.8	2.8	3.0	1.0	0.5	4.5	3.9	6.5	7.6	4.3
Hd. Education	8.3	-	11.1	14.0	17.1	15.3	14.6	8.4	16.2	10.8	9.7
Hd. Maths	6.5	3.6	-	7.8	18.1	-	-	1.1	-	17.9	-
Hd. P.E.	10.0	8.2	-	13.0	1.9	11.0	-	7.1	10.1	9.6	13.9
Hd. English	7.8	9.4	-	6.0	-	6.7	7.8	8.1	3.6	5.9	9.0
Hd. Art	4.1	3.6	6.3	-	7.6	6.0	5.6	3.2	0.6	3.9	3.0
Hd. Biology	1.5	-	4.4	1.1	2.9	1.9	0.0	1.1	0.6	2.5	1.3
Hd. Chemistry	1.5	0.8	1.3	2.2	8.6	3.3	2.6	2.1	1.3	1.2	0.9
Hd. Music	-	3.2	2.8	2.4	2.9	-	6.0	8.8	5.8	5.6	3.9
Hd. Physics	———										
Hd.Prof.Course	———										
Hd. French	———										
Rep.(Rel.St.)	4.6	5.6	4.7	-	2.9	4.8	5.6	3.9	3.6	-	-
Rep.(P.E.)	1.3	1.0	1.9	2.7	-	2.4	2.8	1.9	1.3	2.7	-
Rep.(Maths)	3.0	4.2	2.5	2.7	-	3.6	0.9	2.4	3.9	6.4	4.1
Rep.(Maths)	1.3	1.8	1.9	1.3	3.8	1.7	0.6	1.9	0.6	3.4	1.1
Rep.(Geog.)	3.0	2.6	2.5	2.4	2.9	3.1	6.2	1.9	3.6	-	0.4
Rep.(Hist.)	4.2	4.6	3.8	5.9	1.0	5.5	-	5.4	4.5	4.2	6.0
Author	0.7	0.0	1.6	3.8	0.0	1.9	1.5	1.7	2.6	0.5	1.9
Rep.(Edn.)	2.4	3.0	7.3	4.6	0.0	-	10.4	4.3	3.2	4.9	2.8
Rep.(Eng.)	———										
Visitors	4.6	9.8	3.2	-	1.9	8.8	2.4	7.7	9.1	3.2	11.2
Students	-	-	-	-	-	-	-	-	-	-	-
Total	100	100.4	99.9	100.2	100.2	101.6	100.1	100.1	99.8	99.9	100

	1970-71							1971-2				
1	2	3	4	5	6	7	8	1	2	3	4	5
.8	23.8	19.7	9.8	15.0	-	20.0	18.1	15.9	17.0	20.5	15.7	10.4
.7	10.7	8.5	10.9	5.5	10.7	7.6	2.3	9.4	10.1	10.5	6.2	7.2
.9	4.4	3.5	3.3	2.6	6.1	5.6	5.0	4.1	4.2	4.8	8.8	4.8
.6	11.0	11.1	24.1	10.4	23.0	13.8	12.9					
								5.3	1.2	2.8	18.6	13.2
.4	6.9	7.4	8.7	-	13.5	6.2	3.8	10.2	4.4	6.0	4.0	8.1
7	0.9	1.9	0.9	0.3	0.8	3.4	1.5					
1	0.9	0.2	1.3	3.5	1.2	1.9	1.5	2.9	2.2	1.1	0.4	1.4
1	1.6	0.9	0.9	1.4	3.7	1.1	0.6	1.1	0.7	0.0	0.0	1.6
7	2.5	-	2.6	2.8	4.1	1.7	4.o	-	1.7	-	6.9	3.7
4	1.9	3.2	4.1	4.0	2.5	3.9	0.3	3.5	3.7	1.4	0.7	5.8
9	4.1	3.2	8.7	4.9	5.7	1.4	7.3	8.8	10.9	11.1	3.2	-
								2.1	3.0	2.3	2.6	0.9
3	6.3	4.4	3.0	4.3	1.2	3.1	3.8	1.5	4.0	6.6	0.0	8.8
4	0.9	1.9	1.3	4.6	1.6	0.6	1.5	1.8	6.2	1.1	0.4	3.7
7	1.3	-	2.0	1.2	-	-	3.2	3.2	3.0	2.3	1.5	0.9
3	0.3	-	0.7	0.9	-	0.3	0.9	0.3	2.7	-	1.8	3.0
2	4.1	3.5	-	3.6	4.1	2.0	2.9					
2	5.3	3.9	5.9	5.8	-	-	4.4	2.4	2.2	5.1	2.2	-
6	1.9	2.1	1.7	3.5	0.8	2.8	2.9	2.9	5.2	2.0	3.6	4.8
4	1.3	3.7	3.3	7.5	7.4	1.4	5.6	0.0	-	0.9	0.7	-
								0.3	1.2	2.6	2.2	-
3	6.9	16.5	3.0	14.1	11.1	15.2	11.1	23.5	15.6	16.5	17.2	20.1
6	3.1	4.2	3.9	4.3	2.5	7.9	6.4	0.6	0.7	2.0	3.3	1.6
7	100.1	99.8	100.1	100.2	100	99.9	100.1	99.8	99.9	99.6	100	100

of the Headship of the Drama department had to be faced. A small sub-committee of interested parties was set up; upon its recommendation the appointment of a Head of department was avoided. This maintained the status quo; but the manner of making the decision underlined the fact that this was a "political" matter primarily, and that a rational staffing policy was still well in the future. The question of staffing policy in general was raised at the same meeting by the tutor in charge of French, a small department of two members. It was discussed inconclusively. The College could not effectively adapt to major changes of function which might arise out of the James recommendations, without changes in the relative size of departments; but the Board was incapable of defining a policy by agreement. The discussion was abandoned. An attempt to define the procedure for appointing Heads of departments in view of foreseen problems of succession, fared no better. After twenty-five minutes of discussion the topic was shelved. Slightly more was achieved in the matter of promotions to the Principal Lecturer grade, an area in which fierce lobbying had been going on. It was agreed that "grace and favour" promotions of staff soon to retire should be scritinised with the utmost care. A small committee, of the Principal, Deputy Principal and Head of the Education department was confirmed.

Steady growth had allowed for structural adaptation since departments may grow at different rates; promotion was fairly rapid. The achievement of a stable state, by

contrast, provoked a clearer realisation of the resulting inequalities, and of the fact that they would persist. Henceforth the "have-nots" could only be recompensed by depriving the "haves", none of whom would be the first to lay his head on the block. The prescribed machinery for such matters was a recommendation by the Principal to the Governing Body on the advice of the Board, should he care to seek it. The matter of promotions was pressing, and was in the end settled by the small committee not without unhappyness. The larger matter of a deliberate staffing policy was verbally explored at length; yet despite its obvious importance for strategic planning, it proved to be a wholly intractable topic. Future decisions would continue to be taken piecemeal as the occasion arose.

Occasions did arise in 1971-72. Staffing was considered at four of the five meetings during that academic year before the research ended at Easter 1972. Where staff resigned the status quo was maintained; but additionally, after negotiations with the D.E.S. a temporary appointment was made to the Physical Education department, and the French department was able to replace an assistant by a Lecturer. These were special exceptions, wrung from the D.E.S. by direct negotiations, and the grant of which was accompanied by recommendations that the College should agree a firm staffing policy. However, there seemed little point in pursuing this until the effect of the James recommendations on the College

could be seen more clearly. Most of the heat had gone out of the issue, but it was certain to be resurrected whenever the slightest change in the situation offered hope to any department or sub-unit that advantage could be gained. In the meantime the inability of the Board to formulate a policy had the effect of driving Heads of department who believed they had a case back to the system of private lobbying. The support of H.M.I's could be enlisted and special cases pleaded directly with the Principal rather than before the Board. It need hardly be stressed that when such pressures are successful, as these were, the effectiveness of the Board as a decision making body is undermined.

The end of growth also saw an increase in resistance to internal differentiation by the encouragement of new sub-units. As a by-product of the change in the balance of training which involved the disappearance of the "B" courses, French and Economics were promoted to Main course status, and thus participation in B.Ed. courses. They became potential competitors for staff, finance and services. This was one of the complicating factors in the discussions mentioned in the last paragraph, but in addition their changed status provoked discussion of what precisely constituted a department. Recognised departments received a share in the estimates, voted on the "A" roll for the Academic Board, and had control of rooms, services and equipment. Their independent status was highly valued, and a potential Head had highly valued

prospects, denied perhaps to a more senior member who belonged to a larger unsegmented department. Environmental Studies, and the A.V.A. sub-unit which was run by a sub-committee of the Board, both had departmental aspirations. The latter was formally set up in 1969/70, but refused departmental status in 1970/71. No further requests for departmental status were entertained. It is not difficult to see why. All major departments are capable of being segmented; if Heads of small departments were able to get what would amount to accelerated promotion, there would be a great pressure to fragment the major departments in the name of equitable promotion opportunities. Additionally, any increase in the number of recognised sub-units increases competition for resources, complicates timetabling and other allocational aspects (such as rooms and secretarial assistance) and changes the power structure. The interrelated areas of staff allocation and new sub-units are clearly those in which organisational resistance to change are deeply entrenched in the College. Only powerful pressures from the environment expressed perhaps as changes in students' course preferences or as directives from the D.E.S. would be able to secure structural changes unaccompanied by growth.

By far the most important business of 1970/71 was the discussion of the review of College courses by the Area Training Organisation, and the preparation of documentary evidence for submission to the Review committees. The College had made no submission to the

Parliamentary Select Committee on Education and Science which had been set up during the period of office of the Labour government. But when the A.T.O's were asked by Edward Short, the then Secretary of State, to conduct a detailed review of the work of the Colleges, it was necessary to nominate members of staff to serve on the A.T.C. committees, and also to prepare the submissions. The fact that the James Committee was set up early in 1971 accelerated the whole A.T.O. review programme. Much time was spent during the first four meetings of the Board in 1970/71 in compiling a memorandum for the Review Body, in which the College's views were set out, and in discussing reports of the Review Body's activities. Two ad hoc meetings of large groups of staff were called on initiative arising outside the Board to discuss the future of the College, the proposed course structure called into being by the altered balance of training, and, since the way decisions had been taken was challenged, the constitution of the Academic Board. The main discussion was provoked by the group in cluster seven. The first meeting was abandoned according to my notes "not in disorder but in mounting confusion". It revealed considerable anxieties, together with an awareness of how vulnerable the College was to the consequences of decisions taken at the D.E.S., and to competition from Polytechnics. It showed how easily the initiative could be lost by a major institution. Much of the speaking from the floor revealed feelings of powerlessness and baffled dissatisfaction.

Some of this was directed against the Board. The second meeting was called expressly to discuss the decisions the Board had taken and the manner in which they had been made. The division between those favouring the personal education of the students as the primary task and those orientated to the professional formation of the students as teachers was worked over yet again. The former group favoured a development towards a liberal arts curriculum; the latter wanted to retain the monotechnic principle. But throughout the discussion the point that professional preparation can at the same time be a personal education as well as vocational training was reiterated. My notes on the second meeting concluded, "There was the usual appeal to cultural values, and to professional needs, and the usual verbal synthesis. The culturalists were an isolated few; the extreme professionals were an isolated few. The synthesists were the many." As a result of this meeting a cluster seven member was elected to the Board at the next opportunity.

The James Committee reported in 1972. The Board merely noted the publication and made arrangements for a full meeting of staff to consider it. When the research came to an end at Easter 1972, it was clear that no immediate decisions could be taken. The future structure of the College, the mix of entrants, staff deployment, the pattern of courses and the nature of the terminal qualifications, all turned on decisions made about the intended shape of the whole system of higher education,

which would eventually be announced in a White Paper; and it seemed evident that significant changes were contemplated. Contingency plans were made for a three year degree course structure, and for an increase in the post-graduate course numbers; but the Board could do little more than strive to increase its access to information and prepare for the next adaptive shift.

The course changes which had taken up a quarter of the time of the Board during 1969/70 had begun to be implemented in 1970/71, but would take three years to work through. The core of the change was the abandonment of the "B" subject and its replacement by a Professional course consisting of English, Mathematics and several elective options, intended to give students a preparation more suited to the less specialised junior and middle school age ranges. Certain subjects, the Sciences, Physical Education, Heavy Craft, Economics and to some extent Music, were not well suited to the needs of such teachers. Much of the discussion turned on the need to provide separate but equal courses for the majority who would be primary and middle, and the minority who would be secondary, in orientation. As the change was the result of pressure from the D.E.S. not choice, attempts to opt out of the change at the implementation stage were made; other attempts were made to cut down elective courses or so group them as to reduce fragmentation of students' work. A series of amendments was discussed in attempts to meet this situation without giving the intending secondary students

an advantage in respect of B.Ed. entry as a consequence.of their narrower course; and to avoid overloading the students. These amendments became more pressing in 1971/72 as the reform entered its second year; they made up a third of the business. Those favouring the original reform, which originated largely in the Education department were largely drawn from clusters to the right of the dendrogram who were familiar with and more frequently skilled in the area of method courses. Criticism came from the left hand clusters which included some Heads of large secondary orientated departments, who saw the students' concentration of effort on main subjects eroded, the personal education of the students reduced, and whose staff more frequently lacked experience of teaching the younger age groups. The Lecturer in charge of the Professional course was much dependent upon staff from other departments than Education for staffing the course, and hence vulnerable to pressure. By the end of the research period the electives had been so arranged as to be rather similar to the old "B" courses. Nothing like the originally intended change in the balance of training had taken place. Staff recruitment and deployment policies were therefore able to continue largely unchanged. The Professional course had, however, been brought under the jurisdiction of an External Examiner.

The Bachelor of Education degree was recognised by the University as an Honours degree in 1969/70. Only minor modifications were required in administrative

arrangements in the following year. However in 1971/72 it became clear that numbers of intending candidates would rise steeply since the Part One examination had been abolished and entry requirements somewhat relaxed. This raised in an acude form problems connected with the method and timing of selection for B.Ed. courses, which became a major element in the business of that year. To this the organisation of an In-Service B.Ed. for teachers, to be instituted in 1972/73 added further preoccupations. Associated with the topics of assessment and recruitment was that of students' access to their own records. There had been considerable national agitation during 1970/71 about this matter. A large operation had to be mounted to enable students to view their records individually and in the presence of their personal tutor. Having established their right of access the students did not exercise it. The topic did not arise the following year.

Minor business included the usual time spent on considering student cases, particularly with reference to failure on teaching practice, coordination of dates and routines, organisation of an Open Day and the use of the College theatre. Significantly perhapse, the annual number of meetings declined from eleven in 1969/70, to eight in 1970/71, and five in the two terms up to Easter 1972.

Table: 21 The Pattern of Academic Board Business 1969-1971

	1969/70 Mins.	1969/70 %*	1970/71 Mins.	1970/71 %*	1971/72 Mins.	1971/72 %*
Sharing Resources						
Ancilliary staff	148	7.0	16	1.0	-	-
Space	72	3.5	33	2.0	7	1.0
Estimates/Finance	57	3.0	14	1.0	33	4.0
Staffing/Promotions	204	10.0	147	8.5	47	6.0
New Sub-units	204	10.0	26	1.5	-	-
A.T.O. Review of College (and James Committee)	5		424	25.0	9	1.0
Students						
Academic Recognition	86	4.0	71	4.0	45	5.5
Assessments	21	1.0	-	-	160	19.0
Record cards	14	0.5	121	7.0	11	1.5
Personal Tutorial System	22	1.0	-	-	-	-
Course Changes and Teaching Practice	522	25.0	297	17.0	280	33.0
B.Ed. and In-service B.Ed.	61	3.0	93	5.5	81	9.0
Minor Issues						
Library	72	3.5	35	2.0	65	7.0
Patronal Festival	163	8.0	94	5.5	-	-
College Theatre	-	-	-	-	-	-
Open Day	20	1.0	24	1.5	-	-
Coordination of dates	368	18.5	282	16.0	27	3.0
Other	-	-	-	-	80	10.0
Total:	2067	100	1755	100	845	100

*% rounded off.

Discussion

The developments leading to the Board and the nature of its business having been described, it remains to relate its activity to the preceding analysis and arguments. We have seen that there are two deep-rooted cultural traditions in the College which embody former notions about goals, official belief and value systems and codes of priorities which go back to previous states of the enterprise. They are not supported by powerful rituals and are visibly changing, but all members socialised to the College have to some extent internalised them. The Board could not wantonly disregard them. Particularly in matters of religion, or if the College sought to do other work than teacher training, the Church nominees on the Governing Body and the Council of Church Colleges would be forces to be reckoned with. In other directions, the same is true of the University representatives.

Individual staff are recruited from a wide range of institutions and differ greatly in level of qualification, length and type of experience, age, degree of specialisation and outlook. They are professionals who cherish and defend vigorously their personal autonomy in work; supervision, monitoring, and direction are by agreement amongst near-peers in most departments. Against the wishes of a powerful group which included the Principal, the Board was so constituted and operated as to enable a wide representation of interests to be present at decision making; all clusters eventually had their voice. Frame-based

as well as department-based interests could be and were expressed, frequently from the floor as well as the membership. The small-group teaching situation was preferred. Even where deliberate coordination was sought, maximum concessions to individual teaching styles had to be made, as the study of the First-Year Panel showed. The major problem in the area of operations was to create and preserve conditions which maximised each lecturer's chance to meet students in the size of group, the sort of room, and for the duration and frequency of contact he preferred. The result was a compromise inevitably; but a delicate and continuously evolving compromise which could not be lightly upset. Its details were delegated to departments, and this gave them great powers for resistance and subtle distortions during the implementation of any operating decision. The attempt to substitute an Extended Professional Course for the former "B" courses revealed the weakness of the Board in the face of these countervailing powers.

The departmental and service sub-units, each had its own information set and belief system about priorities and how it should behave towards other departments, the administration, and students. These sub-units were sentience groups, each a locus of power and of academic, professional and career interests. Each worked in the main in isolation from the others and developed its own conception of the task of the College as well as its own priorities and emphases in what it contributed to that task.

Coordination amongst the departments was external by the timetable, Academic Board and informal agreements, not by any formal attempt at integration in the work situation except in the areas of Professional courses and Study Practice both of which were marginal to the concerns of any but the Education, Mathematics and English departments. But if the College was differentiated and complex, it held.together as a unit. Lynton (1969) has offered a view of differentiation in terms of technology, territory and time. There were no serious territorial boundaries amongst the departments, nor were they separated by different production cycles; if cooperation was limited, the level of coordination was adequate except in the matter of students' work loads. It was the "knowledge technology" which promoted differentiation.

In other ways the College approximated to an "organic" organisation as described by Aiken and Hage (1971). It comprised a diversity of specialisms, the subject disciplines; there was considerable involvement in organisations and activities outside College; committees of the University, examining bodies, professional associations, courses and conferences, schools, teachers centres, publishers. Keeping in active contact with the outside professional world and a range of special sub-environments was a highly regarded though not formally regulated activity. Hence there were many receptors, information flowed in at many points; ideas from outside, alternative ways of envisaging problems, were readily

available, as the study of the First Year Panel's decision processes showed. But whilst there was sensitivity to new approaches in content and method of courses there was little awareness of innovatory organisational patterns.

The degree of interconnectedness amongst the differentiated parts, the state of "integrative complexity" (Driver and Stewfert 1969), influences the way in which the information which is received is used, for it is a determinant of the organisation's capacity to communicate information internally, to interpret and evaluate it, and thus to learn, to maintain its state of readiness, to respond to changes in the environment by keeping its appreciative system up to date. Because there was plenty of slack in the timetable and opportunities for informal meetings were frequent, and because relationships amongst individuals were close, there was a great volume of unscheduled communications relevant to the task going on at the informal level; This was one major integrative process.

In contrast communications amongst sub-units were few. There was no formal machinery other than the Academic Board which brought Heads of departments together regularly. I do not think this had arisen by chance. Individual communications informally transmit and interpret information. But they commit no one. Academic Board decisions were taken in a public situation; and though departmental interests were continually brought out, they

were subject to the scrutiny of all the other interests present and to the convention that the College interest should transcend departmental interests (as shown in the matter of staff reductions). But whenever negotiations were opened to bring about an accommodation between two departments, or amongst several, private canvassing or lobbying was more productive. Thus when an In-service B.Ed. was proposed for teachers, the Head of the Education department canvassed each Head of department in turn. The same machinery was used when new norms for work on the Professional course had to be established. Interests can be revealed in a pair situation which would be kept back at a meeting. For example, no department which is claiming to be understaffed would undertake at a meeting extra commitments towards, say, post-graduate or in-service B.Ed. candidates, however desirable it might be to increase the College's stake in these two areas. But if all the competitors for staff (or whatever other resource) can be prevailed upon to accept the commitment privately, one by one, and conditionally upon the others doing so, the need can be met. The extra commitment would be discussed on the Board, so that the ritual demand for more resources could be made. The process of the Board would merely be that of ratifying a previously negotiated settlement. Some negotiations, in short, are delicate and better kept off-stage.

A typical cycle might be as follows. Information flowed in. A member of the Board, often the Principal,

indicated a new opportunity or requirement, which was generally discussed. The likely administrative consequences - rooms, money, equipment, staffing, timetabling, were briefly mentioned. The main work was then done by interested parties negotiating privately with a series of other departments, the administration, and any outside interests. When these negotiations had matured a plan or paper was presented to the Board to be checked against general policy, to inform the College, to enable the impact of the new proposal on administration to be examined in detail, to permit changes in the rules, work out reallocations, ensure that no interest had been overlooked, and to appoint those who would implement the innovation. Major policy was not clearly formulated. Strategic decisions were largely adaptive responses to moves by outside bodies - schools, the University and the D.E.S.; rarely if ever were there direct initiatives by the College. For general allocative matters (space, time, finance, staff, promotions) a paper and discussions were possible, but it rarely involved more than a bid for resources suspected to be available, or a repetition of a previous demand, intended to keep the matter open. Canvassing would be of little value, since it would be simply met with a reiteration of counter-demands by the department canvassed. Direct lobbying of the Principal, if possible with the support of H.M.I's, External Examiners, etc., was more profitable. The following figure 12 summarises these processes.

Fig.12: Scheduled and Unscheduled communications at three levels.

Level		Scheduled (records kept)	Unscheduled (no records)
College	Public	Academic Board sitting	-
	Private	-	lobbying of Academic Board members as such (rare) and Principal (common)
Dept.	Public	Meetings, panels, administrative memoranda	-
	Private	-	negotiations (pairs)
Individual	Public	Notices, round-robins (rare)	Informal communications
	Private	-	Private lobbying, personal accommodations, private gossip, leaks, information

Dealings with individual schools, the Boards of study at the University in each subject, with B.Ed. committees, external examiners and other Colleges in the A.T.O. were mainly carried out by departments, negotiating for themselves but representing the College. The Principal and others in the administrative bloc negotiated with the Delegacy (a widely based committee which might be said to have functions analogous to a governing body of the A.T.O.), the Senate, the D.E.S., the Council of Church Colleges and the Governing Body. The outcomes of these dealings which

varied in their relative importance from term to term were in large measure reported to, discussed, appraised and coordinated by the Academic Board, which was in this way more than a consultative or advisory body with the limited responsibility for academic matters proposed in the Weaver Report.

In sum, therefore, the functions of the Board were:-

(a) It was the forum of the 'political system' of the College where interdepartmental negotiations were finalised in public within the scrutiny of frame-based alternative groupings. It had major interpretative functions in respect of incoming information and significant powers of policy formulation.

(b) It provided opportunities for face to face consultation and thus economical processes of routine coordination.

(c) It acted as a committee of grievances and could, within considerable limitations establish or modify rules, particularly in allocative matters.

(d) It was the formally constituted body concerned with academic recognition of students (admission, selection for courses such as B.Ed., certification). It had some derived responsibility for discipline particularly in cases of unsatisfactory progress and could be used as a Court of Appeal in such cases.

But its powers were limited. It could not interfere in detail in the running of individual departments, but only try to coordinate their activities so that, for example, students' work-loads were not made too heavy. It could, of course, if there was general agreement, move resources towards or away from a department in the form of staff, services, rooms, equipment and the like; but this was not used seriously as a sanction. Its main procedure was the obvious one of reaching a common policy in the presence of the Heads of departments who would implement it, and then leaving it to the Heads of departments in the trust that the spirit of its decisions would be carried out. A second limitation was that the Principal and S.A.O. of the College were not nominated by the Board. The Principal had the counterweight of the Governing Body. Both he and the S.A.O. had prior access, and often the only access, to information entering the organisation from outside, from the D.E.S., the University and other Colleges. They had power of independent initiative, of delay, and the very considerable influence which stems from possession of the chairmanship of the Board. Finally, D.E.S. policy could be, and was, imposed on the College.

The Board was a representative assembly, with certain well defined roles amongst its members, but without significant internal groupings. Two attempts to constitute an inner steering committee failed. There was no finance committee, no secretariat nor permanent recognised

combination of members existing to prepare business. The Heads of large departments did not appear to have banded together in any collusive sense. There was no political grouping of the staff designed to ensure the election of members to reflect particular interests, such as those of junior staff or A.T.C.D.E. activists, though it is likely that departments sought to be as well represented as their numbers would allow. There was no secrecy; observers could and did attend, and speak with the chairman's permission; minutes were circulated and the file of minutes was readily available. There was also easy access to the Registrar who drew up the agenda so that matters to be raised could be appropriately placed and a strategy worked out. Students, two representatives of the Students Council and up to three observers, joined the Board in 1970 as non voting members. They were only asked to withdraw on one occasion, when personal matters relating to a student were discussed.

The major change brought about by the development of the Academic Board was that the Principal without giving up any of his major powers had admitted the Board to a share in some of them. The main effect of this was that what was formerly done privately and inconsistently as a result of opportunist approaches and lobbying was now to a greater extent done openly and recorded. The traditional prestige of the Principal was unchanged - he had not become a constitutional monarch, nor a Vice-Chancellor - and the administrative hold of the S.A.O. though challenged

was unshaken. Alternative means of getting things done still existed, that is, direct approaches to the Principal (lobbying for support in advance of decisions, pleading for indulgences afterwards) as well as initiatives of the Principal and administrators independently of the Board, which affected academic policy or its implementation.

The key feature which governed the behaviour of members was that little could be done in normal circumstances to impose a decision on a Head of department against his will. This necessarily disposed to a consensual style of decision with few votes. There was no corporate responsibility for decision; dissent was open and normal. Hence the ruling considerations were caution in changing established balances, shares and practices; a striving after fair shares (as with sabbatical years); and workable schemes of coordination rather than managerially forceful reprogramming. This stemmed principally from the fact that whilst in manufacturing industry there is usually some technologically best production methodology, in teaching the potential variety of production methods is vast: size of groups, length and pattern of contact time, nature of the communication process (verbal, written, practical) rate of throughput, etc. The essentially important political feature of the Board in such conditions continued to be that which governed its setting-up, namely that the major interests in the College, the departments, should be fairly represented;

that departments should have reasonable proportion of "say" in the coordination and sharing according to their strength in the College as a whole; and if the restricted number of seats meant the exclusion of a major interest, such exclusions should be in rotation. Given that this situation was seen to obtain, the political temperature could be kept very low, staff getting on with their main concern, teaching the students.

Nominations were likely to be by departments, with a strong tendency to nominate senior members to the "B" list, who had administrative responsibility and previous experience on College committees. This meant that the Head of department would, if he was on the Board, be effectively seconded in speaking for his interest; or else that the elected "B" role member would be the spokesman for his department. In the case of "A" role members, motivation was to ensure that interests were protected by the personal presence of the Head of department. For the Heads of minor departments, and the "B" role members there was probably a mildly honorific element in the motivation; membership was a mode of recognition, showing that the member enjoyed the confidence of his colleagues. There was the satisfaction of joining his voice to the deliberations of the senior group in the College, being in the know, having a permanent role in the political system of the College, sharing in decision. Social recognition, knowledge and power were gained at the cost of the fatigue and sacrifice of time caused by

the meetings.

There were certainly fairly well known rivalries between departments, and though these may affect motivation, there seems little sign that they directly affected observed activity on the Board. There was no group which shared an explicit ideology, or was committed to a public programme. There was no open coalition which endured and was the subject of electoral manoeuvering . Each member presumable represented his own personal views, his department, and the College, doubtless in different orders of priority on different occasions; and he used his personal network of friendships amongst the Board members and in the College to canvas support for any position he took up.

In relatively stable conditions the Board approximated to the machinery of multiple leadership which Perrow (1963) found to be operating in a similarly large, complex and well differentiated hospital also staffed by professionals.

What is being managed by the Principal, the Board and the Heads of departments is not, I am arguing, in a primary or a fundamental sense the day-to-day running of a transformation process since this is largely in the hands of individual professionals. There is no purchasing or marketing function; running costs and capital investment are largely determined by the D.E.S.; the timetable is relatively stable. I do not minimise the skill which the College leadership has shown in building up a large institution from small beginnings with little waste or

unhappiness amongst the members, and within severe economic constraints. The key management task for the present and future seems rather to be the management of working accommodations amongst the internal belief and priority systems, whilst promoting the enterprise's adaptation to the requirements of a changing environment, information about which is not easy to interpret. The task, in short, lies in the areas of tension management and strategic policy not in the area of operations.

It is, again to borrow words from Lynton (1969), a matter of successfully overcoming the rigidities associated with successive revisions in the code of priorities current in the enterprise, as one set of environmental demands and the group and outlook it favours replaces a former one and the outlook which accompanied that. The environmental demands may be changing within the world of a particular discipline, the special sub-environment of a department, or the change may be in the general environment of the whole system of higher education. The groups and outlooks are not, at any rate in St. Luke's, the simple antithetical academic and educationist pair to which the persistent mythology of Colleges would reduce them. This is a sociologically naive view for which the evidence is at best unsystematic and at worst subjective and anecdotic. Whether the plurality of outlooks is called with Goffman (1959) "definitions of the situation", or with Vickers (1970) "shared systems of interpretation" they certainly give meaning to communications originating both inside and

outside College and differentially filter perception of what is happening. They are not simple or unitary or universal in the enterprise. Each new opportunity or requirement which stems from changed circumstances will be differentially appraised by different groups; what is a threat to some (for example the change in the balance of training or the recommendation of the James Committee for a consecutive instead of a concurrent course) is an opportunity to others; and to all it is an occasion frought with the possibility that the present pattern of power distribution, and with it the sharing of resources, may be drawn towards or away from what they see as their vital interests.

Yet it is through the steady appraisal and revision of priorities, area by area, as the situation demands, and by embodying the results in decisions, particularly strategic ones, that the enterprise maintains its relationship to the environment, survives, overcomes entropy. To do this is needs consent. But this is not, however, the unitary consensus imagined by F.W.Taylor, and not necessarily a long lasting agreement with established principles, a settled, institutionalised set of priorities. Rather, it is a requisite consent, for the here and now, holding in the area under consideration but not necessarily enduring if the situation changes again. The Broadest consensus, that which is the basis of publicly taken Academic Board decisions, needs continually to be kept up to date by the receipt and digestion of information, an

activity which takes the form of digressive and often inconclusive discussion, not obviously leading to a particular decision. This raises a point I shall return to, namely that in complex situations where information is difficult to get and to interpret, individuals and interest groups do not know what their objectives and preference orders are, in detail, except when they are faced with a specific decision, a particular choice. They have to find out. And being unsure, they give a guarded, requisite consent on a particular issue, in the prevailing circumstances. They do not readily overcommit themselves to major policy statements. The achievement of this level of consent is a primary objective of management in this type of institution.

The new entrant to College is confronted in the process of socialisation to the enterprise with a plurality of sub-meaning-systems which mediate communications to him particularly about goals, values and priorities. He is usually guided by one member of staff, most often the Head of department. From the beginning he is involved in departmental discussions and decision making. He needs to find out what are the limits of his autonomy. As his informal contacts grow, centred on the Staff Club, he can voluntarily opt-in to an informal information network. His prior experience in the profession, mode of recruitment, exposure to prior courses orientated to College teaching, familiarity with Colleges, and so on, will have the effect of filtering perceptions and influencing the emphases

which he puts on the information that gets through. His departmental membership is of course related to these other variables; but it seems clear that it is not departmental membership which most influences the position on the dendrogram spectrum in which he falls. As has been seen, staff with very varying positions in the clusters are in the same department. There is some accommodation of the actor to the structure: respondents do report changes, often of considerable magnitude in their personal outlook as a result of working in College. Only for a small minority are these a source of frustration and unhappiness, and in nearly all these cases the scope of their work is a chief source of the difficulty. There is also some adaptation of the structure to the actor. Courses can be changed, options provided, to give new staff access to a preferred work area; personal enclaves and 'niches' can be achieved; the professional course is flexible and offers an important sphere of activity to generalists. New sub-units have been set up, a major structural change in the English Main course was introduced to accommodate children's literature, and the first year course of the Education department was fundamentally reorganised to meet the more up-to-date views of a group of newcomers. Most significant of all (and however obvious, it ought to be stated) the Academic Board itself is a major structural change to accommodate staff - and eventually, as it turned out, students' - desire to share in, or at any rate witness, decision making.

Overall, and this is a key characteristic of educational enterprises, the degree of bureaucratic constraint on the individual is low. The price paid for this is the time spent in trying to coordinate activity and to discover policy by negotiations and discussions.

The enduring content of these discussions is:

(a) Control over conditions of work - staffing, nature of facilities and equipment, access to facilities, allocation of time, pattern of courses and teaching practices.

(b) Planned changes in personal and group relationships - control of facilities and students, new sub-units, boundaries between main, professional and education courses, supervision of teaching practice.

(c) The rules of the game - administrative understandings about allocations, finance, division of responsibilities, access to information, who makes decisions.

(d) Clarffication of meaning in new choice situations - whose interpretation is to be accepted? what frame of reference is to define the situation? which code of priorities is to be adopted? who is entitled to change the rules?

Zald (1962) has illustrated a similar process in the more dramatic situation of an American correctional establishment, stressing how a lack of clarity in the goals and incompatible policy outcomes combined with a degree

of independence of groups on the staff led to problems of conflict management. In such situations the attempt to proceed by first defining the primary task is unproductive, partly because the task merely designates an area of activity without offering any guide to priorities or sequences of operations; but also because this approach would invite divisive ideological assertions about codes of priorities. It seems wiser to adopt an action frame of reference which seeks to analyse how people by observable processes maintain different definitions of reality and yet interact effectively. Enterprises, like persons, can harbour incompatibilities and yet persist.

The plan laid before the Board in 1969/70, and discussed over a two year period, to substitute a Professional course with elective elements for the compulsory "B" or Second Main course, illustrates the protracted process of exploration, negotiation and learning. The view taken of the functions of the electives, the resistance to the principle of the change, the developments of contracting out, seeking to lengthen elective elements until they resembled "B" courses, argument about how the course is to be assessed, all offer opportunities for different definitions to find expression and influence the way the plan was implemented. Plans are changed, handbooks of courses are rewritten, the balance of components in joint courses is modified, new accommodations for small groups of students are accepted. What is

conspicuously absent is a constraining written document passed by vote and used to impose a central policy on departments.

It would be misguided in the light of this to perceive the processes on the Board as a power struggle in any naked sense, except on rare occasions. The power of the Governing Body can be invoked ("They won't stand for it") as occurred in the matter of the size of the original Board, any threat to the position of religion in the College. The Governors could veto proposals which might threaten the institutional basis of the College's existence. It is the main function of the Governing Body to protect and legitimise this (as is shown by the need to reconstitute the Governing Body from the moment that the College began to do degree work again). There may be pressure on the administrative bloc by members, as in the matter of getting information about the estimates. But, as in the matter of buildings or contingency funds, the administration can seek to maintain that these are not directly academic matters. By not attending the Senior Administrative Officer can leave his interests in the safe and nearly unchallengable hands of the Principal. The students may press matters not espoused by any staff member such as their desire for participation in the appointment of the new Principal, the nature of their representation on the Board, or the nature of the evidence to be presented to the A.T.O. Review Body. They are, however, few and inexperienced in committee

procedures.

The most plausible view seems to be one of circulating initiatives in leadership according to what task is before the Board. No group is seeking to vanquish and direct; only to redefine boundaries in specific areas, promote a different code of priorities, assert principles (as of public accountability and discussion rather than private lobbying) or otherwise modify the rules of the game. The goals of the College do not fall into any obvious hierarchy; what is at stake may at times be legitimacy, effectiveness or adaptation The criteria of achievement in any area are not clear, so that no group can show itself to be demonstrably achieving at a higher level than others, and so apt for leadership. The Principal's style is one of facilitating accommodations, avoiding issues likely to lead to explosions, minimising occasions for devisive voting. He maintains harmony even at the cost of a slack rate of business and toleration of garrulity by his manner as a chairman, wit, manipulative dexterity, occasional prevarication, verbal skill and exploitation of very high personal prestige, not to mention occasional off the Board negotiations and minor faits accomplis. He always remained behind for social discussions over drinks after the Board meetings.

Below the chairman there is a hierarchy of power and influence related to size of departments and the spread of courses given by a department; these tend to

go with experience of the consequences of decisions and awareness of the problems of coordination. But length of service in College, personality, standing with the staff and fertility of initiatives also count. The powerful opinion leaders tend to speak on almost every issue; in the first year of the Board four of these contributed between a quarter and a third of all interventions, balancing the administrative bloc. Other members tend to act as watchdogs for special areas, speaking selectively on areas of their concern. The emphasis is upon avoiding conflict and challenges, and minimising votes. It might be argued that when the underlying technology depends upon personal relationships as it does in educational enterprises, rather than upon a machine technology, harmony is a major test of the effectiveness of management. Difficult and unpopular tasks are not always faced, such as the rational use of resources and money; thorny problems survive, such as the fair allocation of staff and work loads; not rational public objectives but negotiated settlements amongst segregated interests govern what is done. A negotiating stance is continuous, but it should be noticed that negotiations are amongst groups formally equal in status, not, as in the somewhat similar situation described by Strauss (1963) amongst doctors, administrators, nurses and ancilliary staff where status differences did add complications. Generally the students accept the situation, though they are well aware of some of its dysfunctional

outcomes. The bureaucratic constraints upon them are also loose, and one suspects that they can and do, with experience, "play the system" to their individual advantage like Strauss' experienced hospital patients. No student group I interviewed believed there was any organised counter-culture opposed to the system amongst the student body.

A continuous negotiation process, institutionalised but not heavily formalised, and rooted deep in the culture of the enterprise is at the heart of the decision making process. Because its outcomes include both coordination of activities, and the discovery of implementable policy which gives these activities direction, sustaining, facilitating and guiding this process, and as far as possible increasing its effectiveness, is the crucial managerial task during the period of the research. I return here to my previous point. The decision maker in a complex enterprise like the College who knows his own mind is as unreal as the economic man of the nineteenth century who could always instantaneously calculate and state his preferences. It is much more plausible that in such situations as that of the College, people only start to clarify their objectives, preferences and ends, in such a way as to enable them to make deliberate and systematic choices in conditions of uncertainty and low

precision of information about consequences, when they are actually faced with the realities of a choice situation. (Lindblom 1958 a and b). There is no well established theory to guide them. When generalised debate took place as it did in ad hoc meetings on various occasions during the research period, gross differences among the major outlooks and interest groups showed clearly. But finer differences underlie week-by-week policy, choices and allocations. The importance of negotiation, whether at individual, departmental or Board level, is that it reveals to participants as much their own preferences as other people's; and not in principle or hypothetically but on specific issues, in some detail and at the crunch. Additionally, the routine ways of implementing decisions and monitoring operations and performance allows an increasing insight to be gained by a large group of staff into the integration of values and policies. The participants and observers learn more of both; retrospective evaluation becomes more realistic and responsible.

This helps to explain why the observable partisan groupings, coalitions, systematic opposition and so forth, which I had originally expected to develop, did not clearly appear. Even if the small extreme groups and unique cases are included, there is a degree of consensus on very general normative values, though, of themselves, these impose no priorities. Because of this, despite inevitable degrees of reluctance, there is usually a

widespread agreement on the general character, direction and nature of foreseen change, such as for example, enabled the College to submit evidence to the A.T.O. Review Body without dissent. Particularly after the opinion leaders have pressed home the significant features of the general case under consideration, (strength of D.E.S. pressure, financial position, availability of teaching places, the university's attitude, etc.) consent to strategic policy is not withheld. The long experience of smooth growth and its consequences has created a degree of confidence in managed change, so long as the change is not of a drastic order. Provided that it takes the form of small incremental changes made one sector at a time, it is not too difficult to foresee what will be the short-term consequences. The possibility of reversing the movement without dislocating the organisation remains reassuringly in the background.

No formal policy manifesto seeking to command or impose assent is made, but rather a succession of hit-by-bit decisions that some change, more or less in this direction, emerges. The domain of decision under review can be kept small. Problems can be taken area by area as they appear, separated in time and without a pressing need to reconcile decisions in different areas until the discrepancy shows up as another limited problem some time in the future. Each member can hope to keep the number of considerations he has to be concerned with down to a managable proportion; those with wide concerns can

use their large departmental meetings and interdepartmental negotiations to clarify their position. Although major decisions, such as fundamental changes in course structure, may be fragmented, and incompatible decisions are taken, in the meantime some progress is made; and the mutual adjustment of groups over serially presented choices is much simplified. The situation is too complex to allow for comprehensive policy statements except of a vague anodyne type, for they would close down the options and invite resistance and evasion at departmental level.

No one can say in any detail what would be a good future state of the College save in a purely utopian or narrowly ideological way that would amount to no more than the assertion of one value system. Organisational learning comes from situations of marginal choice in which different value systems are exercised and competitively scrutinised in a situation of decision, not a merely verbal, speculative debate. In such circumstances it is likely that proposals will be evaluated for small resulting improvements not relative to some single, simple, major goal. More threatening, perhaps, in the situation in which the College finds itself, than ideological assertions about goals, is a refusal to think, an excess of devotion to previous procedures, an unwillingness to face up to a changing environment and new tasks.

I conclude that the decisions of the Academic Board are the results of low temperature partisan group activity. Interests ignored by one group are vigorously

championed by another; or if not, as in the case of the interests of the extreme cluster seven, a new spokesman emerges on the Board to defend them as they are recognised. To be successful any initiative must be reasonably acceptable to group interests upon which it will impinge. But the process of finding this out is largely public; reasonableness and reciprocity are fostered; and there is usually ample time. At best the result is an integrative solution where all get most of what they want, rather than a reluctant compromise. It can be a slow, untidy, and energy consuming process. If in the future a situation arises where major decisions have to be taken quickly (until now a relatively rare thing for Colleges) it seems likely that they will be taken not by the Board but by the Governors, the Principal or a small inner steering committee. In the meantime the College can be content to cherish the benign and civilised aspects of a political process.

What has been presented is an interpretation, description and analysis of some important features and mechanisms within one institution. The focus has been necessarily limited. Much that is extrinsic to the enterprise, the wider economic and political policy aspects and the institutionalised culture of Colleges of Education nationally, could only be noticed in passing,

though much of the information on the basis of which Colleges have to make decisions is generated in the first of these, whilst the second is to some extent a constraint upon freedom of action. What the organisational pattern and value system of the College do to knowledge in the process of transmitting it to students is a further area which could not be examined. All these are important, and valuable work has already appeared (notably Taylor 1969). I recognise, in short, that the selection of appropriate contextual features is a difficulty in studies of this kind, and that those I have selected are not necessarily the only relevant ones.

The notion that there is a consensus from which some groups and individuals deviate can easily be converted into a doctrine of orthodoxy and heresy and used to simplify problems of control and decision in complex and uncertain situations which provoke anxiety both about the internal stability of the enterprise and its institutional basis and legitimacy. The alternative, as I have tried to show, is to admit the reality of differing definitions, to institute and cherish mechanisms through which a requisite working consensus can be achieved. To do so implies the recognition that the management of accommodations, not control is the central task; and that strategic policy is arrived at by discovery and learning in group situations. Since educational institutions are rearely well paced to manipulate cash or other rewards for compliance or consent, and coercion

is hardly possible, a leadership style which maximises opportunities for institutional learning and negotiated consensus, has much to commend it. Discovering how to create conditions which increase the possibility of organisational change by means of learning suggests itself as a worthwhile area of research.

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APPENDIX A

Interview Schedule - 1969 recruitment cohort

Personal details.
How did you come into teacher training?
What alternative job opportunities were available to you?
What were you looking for in a job in teacher-training?
Where do we belong in the profession as a whole?
Which group in the profession do you feel closest to?
Do you look to any particular group in the profession for comparisons?

What expectations of the job did you have before you came?
Are you doing the job you expected to do?
Have you begun to adjust any views as a result?
To whom do you look for guidance.
Where do you get your main stimulation and ideas in the work?
How far would you be willing to make major changes in your present subject area?

Compare the two aspects of the work:

Subject interest	High	Middle	Low
Interest in professional training	High	Middle	Low

What are the main satisfactions of College work?
What are the main disadvantages of College work?
What do you feel is the likely career pattern before you?
What would you consider a successful career?
How would a change to a more Primary emphasis affect your satisfactions in the job?
Is your department staffed on specialist or job-rotation lines?
What teaching do you enjoy most?
Are you satisfied that the College is doing the right job?

Questions for written response, presented during interview

Here is a list of the subject Departments in the College. Please mark (1. and 2.) the two Departments with which your own Department seems to have the most contact. Please mark (X) the Department with which you feel you have least contact.

Art/Craft	History	Physical Edn.
Drama	Maths.	Education
English	Music	
French	R.E.	
Geography	Science (Physics Chemistry Biology Env.Studies)	

2. Occupants of the following six posts might earn salaries roughly equivalent to one another (though at different stages in their career). Please number them in the rank order of their social standing as it seems to you. Number the highest 1; the lowest 6.

Lecturer in Further Education (tech.College etc.)	.....
Head of a Secondary Modern School	.....
College of Education Lecturer	.....
Head of a large Primary School	.....
University lecturer	.....
Head of a Grammar School (Maintained G.S.)	.....

3. Please complete the following sentences:

My main problems are with....

The main difficulties of my Department at the moment are.....

Most students are.....

APPENDIX B

Interview Schedule - Main Staff Group

Personal details: age, date of recruitment, etc.
How satisfied are you with the teacher training you received?
Do you do any regular academic work outside College?
Are you engaged in research?

How would you complete the sentence: "Most students in College are....." ?
What do you feel about the balance between students' academic work in your subject and his whole College course?
What do you think about the professional training for teaching which students receive in this College?
What sort of teaching do you prefer in College?
Would you say you were closely concerned with your specialist subject or more of a generalist?
Apart from the work you do in College are there any other areas in which you look for academic recognition?

Work areas

Has the work you are doing in College changed much over the last few years?
Can you point to any specific new areas of work?
Has your general outlook about teaching and education changed much as a result of experiences in College over the last few years?
Is it your impression that the speed at which your professional work in College over the last few years has changed is fast or slow?
Can you point to anything specific in the work that leads to change or promotes stability?

Constraints

Over the last few years have there been changes in your subject big enough to need:

(a) Major changes in course design?

(b) Major changes in staff deployment?

Do you think the level of ability of students has changed much over the last few years?

Has the mix of students coming to your department changed at all over the last few years?

Have students' preferences for different areas within your subject varied much over the last few years?

Market

Has there been any variation in demand for teachers of your subject over the last few years?

In your subject has there been much change over the last few years in what students need to know for school purposes?

Can you think of any other demands from schools in the last few years that have affected your course in College?

How do you get information about what schools want from College as regards the way students should be trained?

Can you think of any specific ways in which feedback from schools has influenced the way you work in the department?

Can you think of any other major sources of information which influence the course you give in College?

Technology and operations

Which of the following categories (presented on card) best describes your subject?

(a) Mainly verbal communication with a small practical element.

(b) Verbal communication with a practical element.

(c) Verbal and practical elements about equal.

(d) Practical skills with a verbal element.

(e) Mainly practical with a small verbal element.

What is the relative importance in the course in your department of the following:

Discussions (tutorial and seminar)
Practical work (group : individual)
Written work
Private study (presented on card)

What is the characteristic activity?
What is the sequence of work for students?

Organisation and staffing

Who interviews new staff members and decides who will be appointed to your department?
What are the most important considerations in choosing a new member of staff for your department?
On what basis is work allocated amongst members of the department?
Are there different kinds of lecturer within your department?

Decisions at departmental level

Do you hold regular departmental meetings?
How is general policy arrived at?
How are routine decisions made?
How are proposed innovations dealt with?
If conflicts arose, how would they be dealt with?
How are courses reviewed?
How is responsibility shared in your department?
How much administrative work is delegated? On what basis?
How are resources shared out?
How much independence have you within the department?
What have been the main effects of growth in size of your department?

Academic Board

What do you feel about the Academic Board in College?
Why are you/should anyone want to be a member?

APPENDIX C

Osgood-type Semantic Differential Instrument

Typical College Lecturer	Traditional	Progressive
	Active	Passive
	Unsuccessful	Successful
	Strong	Weak
	Flexible	Rigid
	Severe	Lenient
	Believing	Sceptical
	Constrained	Free
	Influential	Uninfluential
	Directed	Autonomous
Study Practice	Good	Bad
	Weak	Strong
	Active	Passive
	Boring	Interesting
	Orthodox	Unorthodox
	Weak	Shallow
	Worthless	Valuable
	Successful	Unsuccessful
	Distasteful	Attractive
	Intelligible	Unintelligible
College of Education Student	Strong	Weak
	Sceptical	Believing
	Progressive	Traditional
	Tense	Relaxed
	Sophisticated	Naive
	Happy	Sad
	Unsuccessful	Successful
	Hard	Soft
	Passive	Active
	Free	Constrained
Academic Board	Strong	Weak
	Uninfluential	Influential
	Flexible	Rigid
	Bad	Good
	Free	Constrained
	Ineffective	Effective
	Democratic	Not democratic
	Passive	Active
	Valuable	Worthless
	Distasteful	Attractive
Teaching Methods we use	Interesting	Boring
	Weak	Strong
	Fresh	Stale
	Orthodox	Unorthodox
	Easy	Difficult
	Active	Passive

Teaching Methods we use (continued)	Unfair	Fair
	Rigorous	Slack
	Unsuccessful	Successful
	Flexible	Rigid
College	Happy	Sad
	Tense	Relaxed
	Rigid	Flexible
	Active	Passive
	Disorganised	Organised
	Successful	Unsuccessful
	Weak	Strong
	Progressive	Traditional
	Difficult	Easy
	Run democratically	Not run democratically
The B.Ed. degree	Weak	Strong
	Heard	Easy
	Fair	Unfair
	Rigid	Flexible
	Passive	Active
	Valuable	Worthless
	Distasteful	Attractive
	Good	Bad
	Shallow	Deep
	Interesting	Boring
Teaching-practice supervision	Difficult	Easy
	Kind	Cruel
	Sad	Happy
	Successful	Unsuccessful
	Uninfluential	Influential
	Active	Passive
	Unfair	Fair
	Strong	Weak
	Worthless	Valuable
	Pleasant	Unpleasant

(A seven point scale was used.)

APPENDIX D

Group interview stimulus sheet (tape recorded responses)

I am interested to know whether you have any views about the way the College works as a going concern. How much do you know about this side of the College, and how much do you care?

For example:

Does the College run like a well oiled machine or is it rather disorganised?

Who has power here?

How do the different Departments work with one another?

Can you point to any areas of tension or conflict?

How do you think policies are arrived at?

Is there any group in the College which does not accept the general outlook of the rest - any "alternative society"?

Do you think there are different sorts of staff members - who might have different views about what the College is here for?

Are people here satisfied, dissatisfied, or not much bothered about the way the College operates?

(K.E.Shaw)

APPENDIX E

Classification of Academic Board Business

Natural breaks in the discussion, which usually but not always, follow the plan of business laid down in the agenda, in practice allow the discussion at a Board meeting to be divided up into units. Although irrelevant (but not always insignificant) side issues may creep in, each unit has a single overriding topic. In order to see how time is spent the researcher must classify these topics. Any classification must be to some extent arbitrary and will reflect the research interests and theoretical preconceptions of the writer, in all probability, as much as intrinsic features of what is classified.

The author followed the classification offered by H.I.Ansoff, as being relatively straightforward and simple. It is given in outline below.

Operating. "The object is to maximise the efficiency of the firm's resource conversion process...." This includes:

Resource allocation - budgeting
Scheduling of operations - work programming
Supervision of performance
Application of control actions.

Typical examples of discussion classification as "operating" in the College situation were:

Staffing (allocation of human resources amongst Geography, Mathematics, Education, Drama, Chaplaincy, etc.) with the associated matter of promotions.

Allocation of Ancilliary help, space, time on the timetable, (including dates and duration of activities weeks and similar special aspects of timetable), of Sabbaticals.

Academic recognition of students (control actions); discussion of students' work-loads (supervision of

performance), examining, students' changes of course, endorsements of certificates, teaching-practice allowances paid to staff, dates of meetings.

Administrative. "Structuring the firm's resources in a way which creates a maximum performance potential." This includes:

Organisation - the structuring of authority and responsibility relationships, work flows, information flows, distribution channels, location of facilities.

Acquisition and Development of Resources - Finance, buildings, equipment, recruitment of personnel, etc.

Typical examples were:

Student participation in Governing Body; staff student committees; secondment of staff; agenda of the Academic Board; buildings; T.V. landlines; Record Cards; allocation of students to personal tutors.

(It should be noted that decisions of principle about say, dates or record cards, were regarded as administrative; but routine questions about changes in dates, etc., which did not raise matters of principle but were really concerned with scheduling, were regarded as operating; the former involve questions beginning "Whether", the latter questions beginning "When" or "How".)

Strategic."Primarily concerned with external rather than internal problems of the firm and specifically with selection of the product mix which the firm will produce and the markets to which it will sell." This includes:

Relations with the environment.

Objectives and Goals: diversification to new objectives, or changed emphases.

Relationships with formal outside bodies - schools, University.

Typical examples are:

Course revision, reform of B.Ed. and associated reprogramming of Teaching Practice; subject names; new departments; new courses; Open Day; reports from outside committees; changes in regulations for degree or certificate.

Reprinted from British Journal of Educational Studies, Vol. XIX, No. 2, June, 1971

UNITARY AND DISCREPANT GOALS IN A COLLEGE OF EDUCATION

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The study of the organizational features and behaviours of non-industrial enterprises such as institutions of higher education offers its own special difficulties. Not least amongst these is the problem of clarifying the notion of goals. Years ago Hughes pointed out that there is no consensus in such enterprises as to what the object to be produced shall be.[1] Academic, social, moral, personal, vocational, administrative and other goals are present,[2] but neither a 'hidden hand' nor an open agreement governs the way in which these goals are reconciled. There is no 'hidden hand' because there is no effective market test. The output of academic enterprises can only be recognized as changes in people; that is, as a result of exposure to the educative process changes take place in the state of the students' knowledge, attitudes, skills, beliefs, aptitudes and potentialities generally.[3] These changes are socially valued. Yet there is very little systematic and detailed feed-back of information to the producing enterprise which might help it to adjust its operations and keep on course in the way that firms do in the light of the market intelligence they receive. In fact academic enterprises are largely free of customer constraint. They do not have to consider in specific terms what the customer will accept. If costs can be reduced, as they have been by 'crowding-up' in Colleges of Education, the market will accept the new, more cheaply produced teacher, without complaint. As Paston says, these are producer-dominated enterprises.[4]

Tyler, who has conducted one of the few really thorough studies which attempt to link the teaching processes of an institution of higher education with its observed tasks, at the United States Air University, has pointed out that the objects of such institutions are not set in relation to empirical studies of the work their leavers actually do. Detailed job-analyses of what teachers actually do, of their common duties, critical tasks, chief difficulties, of patterns of behaviour related to unsatisfactory performance, and so on, have never been publicized in Great Britain, if, indeed, they exist at all. It seems instead that Colleges

[1] E. Hughes, *Men and Their Work*, Free Press, Glencoe 1958, 76.

[2] E. Gross, 'The Definition of Organisational Goals', *British Journal of Sociology*, XX, 3 (1969), 277.

[3] R. W. Tyler, quoted in B. S. Bloom, *Taxonomy of Educational Objectives*, 1, 25.

[4] M. Peston, 'Towards an Economic Theory of Higher Education', *Higher Education Review* I, 3 (1969), 44.

function as normative institutions. This is, their objectives and the behaviour intended to lead towards them are generally regarded as being governed by a common set of values shared by the participants which act as imperatives in directing the course of operations. These are a loose cluster of moral, professional, academic and social values, which are recognized as constituting a central concern of the philosophy of education, and typically include such matters as commitment to the individual welfare of pupils, avoidance of indoctrination, concern for academic standards, and the acceptance of professional responsibility in the teaching situation. It is a common form of criticism for students to draw attention to what they perceive as discrepancies between these culturally and professionally approved values and the teaching and organizational behaviours they encounter in College, which are supposed to embody or at least reflect them.

A plausible account of what actually happens has been given by Harris, writing about the Church (another normative organization).[1] He points out that even where strong normative values to which all members assent might seem to control behaviour and create a consensus about aims and priorities, the facts are that differently placed members of a complex organization see things differently. In a College, for example, the administrators may be interested in least cost procedures, the educationists in maximizing students' experience, and the subject teachers in providing the best higher academic education possible. By the first, teaching practice is seen as a cost, by the second as a highly valued opportunity, and by the third as a break in the continuity of teaching. Various individuals and groups attempt to legitimize different patterns of behaviour in relation to the tasks of the College by reference to the same values, yet at the same time claim to subscribe to the common aims. Quite a wide variety of behaviours and accompanying climates can coexist in the same College, each decently justifiable by reference to prevailing educational philosophies which in their popular forms are vague, ambiguous and to some extent contradictory. This situation is helped by the fact that internal occasions for major decisions in which a large number of staff might share do not often arise; such decisions are taken by the Governing Body, the L.E.A. or the D.E.S. Discrepancies thus have little occasion to come into the open.

These considerations reinforce Peston's remark that little is known about how educational enterprises actually work or about their decision procedures either at the macro- or the micro-level of theory. The sorts of models which are available for the analysis of industrial enterprises have not emerged to assist the study of educational enterprises. In this article we shall try to provide a starting point for a case study of a College by paying attention to its pattern of response to the environ-

[1] C. C. Harris, 'Reform in a Normative Organisation', *Sociological Review* 17, No. 2 (1969), 167.

ment. This will entail consideration of its successive historical goals, its present objectives, and will pave the way for a later empirical study of the way in which decision processes and objectives are related.

Ansoff notes that little has been done in the area of historical analyses of business objectives.[1] As regards educational institutions, though a good deal has been done at the general level, there are few studies of the specific objectives of particular institutions, in relation to their environments. Classical organization theorists had tended to neglect this aspect. Their writings from F. W. Taylor onwards were characterized by attention to internal aspects of the firm: worker motivation, job-programming, defining and co-ordinating management activities. Even the much quoted Roethlisberger and Dixon study of 1939 paid little attention to environmental conditions despite the unusual economic situation at the time it was carried out. More recent British work has paid greater attention to response to the environment. Burns and Stalker's study of the electronics industry in conditions of rapid technological innovation is perhaps the best known example. At a more theoretical level the systems approach developed by the Tavistock group incorporates the biological notion of an organization as a homeostatic system maintaining itself in a steady state in relation to its environment by monitoring and feedback processes, which, in their highest forms, amount to conscious self-regulation. Systems theory directs attention particularly to transactions with the environment and usually presents its models in diagrams showing in-puts, transformations, and out-puts, across well defined boundaries.

When such thinking is applied to educational enterprises, one view which emerges is that they exhibit forces tending towards differentiation, along with countervailing social processes producing integration.[2] In a technical college, for example, one would expect the engineering departments and the general studies department to respond differentially to their respective sectors of the college environment, and for these responses to be reflected in the politics of the enterprise. A university School of Management might similarly expect to be subject to pulls from different sub-environments, one requiring it to respond as a consultancy service to industry, another as a research centre, a third as a graduate school, and a fourth as a place where undergraduates receive professional education. These too would be reflected in the processes leading up to decisions. Responses would be reflected in changes of the 'mix' of in-puts (staff, ideas, projects for investigations, different levels of students), and out-puts (advice, reports, publications, different levels of qualified leavers).

[1] H. I. Ansoff, *Corporate Strategy*, Pelican 1968, 37.

[2] P. L. Lawrence and J. W. Lorsch, 'Differentiation and Integration in Complex Organisations'. *Administrative Science Quarterly* 12, 1967, 1; and D. Dearborn and H. Simon, 'Selective perception: A Note on the Departmental Identification of Executives', *Sociometry* XXI (1958), 140.

Colleges of Education are somewhat simpler in being monoproduct institutions, training only teachers. But they serve a very large and varied profession within which there is a fair degree of mobility, from teaching one age-group to another, and from teaching in one subject area to another. They have also differentiated internally to some extent simply as a result of growth. Formal integrative devices on the other hand have been developed, the most obvious one being the Academic Board. What we shall trace is the development from a small College responding to its environment as a total unit, to a large and differentiated College responding to specific sub-environments. In this development, the College seems to have followed a course similar to that detected by Bidwell and Vreeland in their study of denominational Colleges in the U.S.A., that is, from a communally orientated institution with very strong doctrinal and moral aims to an associated institution with a much more marked technical and instrumental set of aims and a neutral administration. For the moment little can be said about decision processes since they were largely inaccessible to study until the Academic Board was set up in 1968. The Governing Body also sat virtually in private, and its minutes were not made public. All important information was channelled through the Principal and Bursar, who by this fact alone exercised a great measure of control over internal decisions and initiatives.

We shall now try to show what were the major historical phases of adaptation in St. Luke's College, Exeter, since its foundation, and later turn to a review of the contemporary situation.

During the earliest part of its history the major sub-environment to which the College sought to adapt was the religious one. Most organizations come into being to meet a need or to take advantage of a direct opportunity. In the fourth decade of the nineteenth century the need for trained teachers in church schools was obvious. There is no evidence that any other objective presented itself to the founders of the College, who were the local Anglican establishment, than that of getting a working enterprise off the ground to meet these urgent and specific requirements. Unlike the older grammar schools and universities, the College had no traditional phase, but was deliberately set up, rather like the new public schools of the time, to socialize students to a given pattern of values and beliefs. It existed 'to train students primarily as men and as Christians and secondarily as schoolmasters'.[1] The first purpose of the Exeter Diocesan Board of Education, the founding body, was to coordinate and promote education 'on right principles' i.e. Church of England principles, in the local parochial schools, and then 'to take steps towards the extension of education on Church principles amongst the middle classes'.[2] The Church felt that its hold was threatened by

[1] *Report of the Governing Body*, Exeter Diocesan Committee, 1840.

[2] J. P. Toye, 'A Plea for the Training College', pamphlet, bound with the *Report of the Governing Body*, 1840.

Nonconformity, apathy, and the instrumental attitude to education of the middle classes; the Board saw that its best hopes lay in running a Training College 'of the right sort' to supply teachers of unquestioned doctrinal orthodoxy, 'men of general knowledge, but above all of sound moral and religious principles'.[1]

The problem which faced the first principal, was, in his own words, 'How to supply a system of education for schoolmasters on the basis of the Church, differing in some points from the old grammar school system, yet not opposed to it, and greatly superior to the old method of parochial education.'[2] Bidwell and Vreeland point out that all socialization has both a technical and a moral element, a skills component and a value component.[3] High prestige education at the time the College opened was at pains to stress the expressive element of moral training and character building, achieved usually through study of classics and participation in sporting life. Any technical or instrumental component in this education, if it came at all, came later, during working life. The College similarly stressed the expressive and moral before the instrumental and technical; it shared the view put to the Cross Commission by the Principal of Battersea College, 'You cannot train them as schoolmasters until you have first educated them as men.'[4] Yet the attainments of the students, who were mostly sponsored parish-school leavers, were such that they needed instruction in grammar, reading, writing and arithmetic. Classics were out of the question, even though Derwent Coleridge, the first Principal of the College of St. Mark and St. John wrote that where Latin failed he had found nothing else to answer.

The solution adopted was to make Anglican doctrine the core of the curriculum, supplemented by strict allocation of time, close supervision, and a heavy emphasis on devotional worship—four compulsory services every day! The early Diocesan Reports were clearly directed at a narrow target population of local Anglican clergy and better-off families who had supported the founders, continued as subscribers, employed the trained leavers, and provided the personnel of the Governing Body. For their benefit the Principal stressed that the College aimed to induce 'outward and respectable conformity to prescribed values', 'humility, regulated temper, contentment in his station, above all Christian responsibility'. The students could be recommended to Vicar and Squire as docile and uncomplaining on his or her £30 or £40 a year, 'conducting the school entirely to the satisfaction of the clergyman'.

[1] *Ibid.*

[2] *Report of the Governing Body*, Exeter Diocesan Committee, 1840.

[3] C. E. Bidwell and R. S. Vreeland, 'College Education and Moral Orientations', *Administrative Science Quarterly*, 8 (1963), 166.

[4] Canon Daniels, Principal of Battersea Training College, *First Report of the Cross Commission*, 448.

The initial adaptation of the College was thus to the social ideology and clerical preconceptions of the founding group and their supporters. The Instrument of Government provided that the Committee of Management in which the direction, control and government of the College was vested, should consist of the Dean, Archdeacon and Canons Residentiary of the Cathedral, and fifteen laymen and fifteen clergy, all donors of not less than £20 or annual subscribers. It seems reasonable to suppose that the College was therefore nothing more than a pocket organization of the Diocesan Board, who controlled all decisions with considerable thoroughness.

But national bodies were taking an interest in teacher training. The first step away from the completely religious orientation was taken in 1847 when the National Society began a general examination leading to a Diploma, and the grant of per capita funds to Colleges entering candidates. Although this, of course, was an Anglican society, once the College began to draw funds from outside the Diocesan group a fundamentally changed adaptation began. From this point a new theme appears in the Annual Reports which slowly displaced religious sentiments. It was the theme of grant earnings. The College was a heavy financial burden on the subscribers; money from other sources was very welcome. But to earn it meant changing the priorities within the College in the direction of more academic and professional study. Once begun, this process could not be stopped; and though the committee of the Diocesan Board continued to govern the College, another payer had begun to call the tune. When the provisions of the 1846 Minute of the Committee of the Council were extended to the Diocesan Colleges, enabling public money to be earned for the institution by students who gained certificates of merit on examination by H.M.I.s, a considerable acceleration of change took place.

In the first year this system operated (1853) the College received £330 or almost 25% of its annual outlay of £1,359. In 1855 public money provided £870 or more than 45% of the outlay of £1,851. Far less dependent now on the subscribers and their ideology the College could adapt to national requirements, send its products all over the country, and turn from religious proselytization as a first objective towards the encouragement of higher academic standards and participation in a nationwide school system. A new target audience for the Diocesan Reports appears: the visiting H.M.I.s, Whitehall and those whose interest in education transcended church and local concerns.

The College next turned with enthusiasm to the task of raising its standards sufficiently to attract Queens Scholars, the big money spinners of the day. In these years the religious content of the curriculum was reduced and reformed. Subjects such as astronomy, natural philosophy and mechanics were brought in, a practising school was set up and a Normal Master appointed to take charge of it. By the 'sixties righteousness and Christian responsibility, whilst still noticed in the Reports, had

become secondary to proud mention of the College's success in earning public money. The provisions of the 1870 Act caused the Lords of the Council to withdraw any official connection with religious instruction in Colleges, so that religious topics had to be omitted from the syllabus of examination, on the results of which the College received grants. The Diocesan Board 'deeply regretted the step'. They met the problem by refusing admission to any student who could not pass an entrance test in religious knowledge, and also by making the religious examination internal. 'No student who did not satisfy the Archbishop's examiner could receive the parchment testimonial on exit.' (Report, 1872.) But they continued to seek grants.

The next major problem arose over the McKenna regulations of 1907 which provided that Nonconformists should enter Church Colleges. This raised loud protest, and the National Society obtained Council's opinion that Nonconformists could not be admitted without violation of the trust deeds. This controversy led to the setting up of the body which eventually became the Central Council of Church Colleges. A compromise was reached whereby the regulations were temporarily withdrawn; Nonconformists were admitted but living in a separate hostel off the College site. This again began a process that could never be stopped. For each year until 1914 protests appeared in the Reports about the entry of Nonconformists and the regulations, which also affected the compulsory teaching of doctrinal religious instruction. But the Church now provided only £750 of the annual current outlay of £14,200, and the protests have a rather resigned and ritual note. By 1929 the Board admitted that 'No College authority can force these things on students in training', and by 1933 the Council of the Church Colleges complained that it was discouraged by the criticism it received even from within the Church.

Turning now to the academic response, we have seen that by the 'sixties the College was well advanced in the change from making its major adaptation to the religious sub-environment to that of the academic sub-environment. The alternative was to remain small and poor. It did not have the option of becoming, like independent schools, self supporting by fees, since the career of schoolmaster did not attract the classes rich enough to pay them. It chose the course, from which it has never since deviated, of seeking growth. The only way to achieve it was to tap public funds. The interest of the Government was in raising academic standards. Since relatively few teachers were trained—the majority were apprenticed—those who had residential training had to be markedly superior as a result. The old candidates from the parochial schools disappeared and were replaced by Queen's scholars supported by Government grants; 1869, 17 Queen's scholars; 1870, 32; 1880, 61; 1904, 100. Apart from these only a few private and National Society supported scholars appear in the lists. English composition replaced reading and penmanship; Geography and History replaced mapping;

Euclid, algebra, logarithms and physical science appeared. Public money produced 54% of costs in 1863, 68% in 1864, and in the 'seventies, 75%.

In 1902 Training Colleges were finally regarded as part of Higher, not Elementary, education, and a full secondary education as an entry requirement began to be demanded. The Principal now began to remind entrants that Oxford and Cambridge local examination results were an alternative qualification alongside the pupil-teacher, Queen's Scholar route. Indeed they were preferable if the student intended to stay on for the third year that was now allowable; the pupil-teachers, he wrote, were too poorly prepared on entry to benefit from a third year.

In 1896 the Government regulations had allowed Training College students for the first time to take university examinations. This was to become the main function of the third year course after the 1914–18 war; it is clear that from the turn of the century this level of achievement had become the new aspiration of the College. The first student who entered failed to pass the intermediate B.Sc. of London University just before the war. The returning soldiers showed considerable interest in outside qualifications, and by the end of the 'twenties the majority of the students were expected to read for Inter B.A. or B.Sc. Suitable staff members were engaged to prepare them in science and Latin, and also, interestingly, in Economics for which there was no Latin qualification. By the outbreak of war in 1939 a considerable majority of the students took the Intermediate degree examination, and the most successful stayed on to complete their degree. But there is abundant evidence that those who left completed their degrees in substantial numbers.

When the College reopened in 1945 degree work was not permitted by the Government regulations of the period which were designed to meet the huge need for teachers as quickly as possible. Degree work was not reintroduced until 1966; but the College retained its heavily academic and secondary orientation.

It is clear that although the Governing Body retained its traditional clerical preponderance until the nineteen-sixties, it began to lose the power to make strategic decisions as soon as it began to accept public money. It was the duty of the H.M.I.s to see that the public got value for money, but their recommendations also helped the College to maintain pressure on the Church for more buildings and better equipment. There can be little doubt that the personal relationships inevitable between the Principal and the H.M.I.s, both of whom shared a professional concern, would create a partnership against which the Governing Body would in the long run be largely powerless. When a serious issue arose, as it did in the religious sphere, the Governors could make face-saving manoeuvres like relegating the Nonconformists to a hostel beyond the pale. But their power of initiative was steadily curtailed. With the coming of the Academic Board the reconstituted Governing

Body has delegated substantial powers; but as a result of the reconstruction its membership was greatly strengthened.

As regards the response to the professional sub-environment, the resolutions of 1902 admitting them to Higher Education notwithstanding, the major difficulty of the English Training Colleges stemmed from their association with the Elementary Schools through the pupil-teacher and Queen's Scholar method of recruitment. Although progressives as early as David Stowe had held that the professional aspect was as important as the academic, the dominance of religious and moral preoccupations during the initial period had left little time or recognition for training in the art and craft of teaching. Right moral thinking had a far higher priority than right teaching technique. Later, because Elementary school teaching did not attract many who had enjoyed a full secondary education, for which opportunities were in any case very limited, the object of government policy was to make the Elementary Schools provide their own teachers. This simply meant, as Rich wrote, that the Colleges were 'turned aside to do work properly belonging to an institution of another type'[1] namely to give a thorough secondary education rather than a professional formation. There is ample evidence in the literature on organizations to show that such 'means' activities rapidly became ends in themselves, and primary goals of the institution. The Principal was always a clergyman, half the staff were graduates of the ancient universities and the others either graduates or visiting specialists in music, French or drawing. The training of the students was thus in the hands of scholarly men of university background, whose contact with elementary schools was very limited and formal. The Practising School, though on the site, was a separate institution, separately staffed. The lecturers held a life appointment, were usually appointed young, and the turn-over of staff was very low. It is natural in these circumstances that the academic objectives of secondary and later external degree level education, rather than professional training should be seen as determining the primary task of the College.

The National Society's Diploma led to the first major reference to professional training in the Reports of the Exeter Diocesan Board. 'It cannot be maintained for a moment,' the 1847 Report remarks, 'that a schoolmaster should learn only what he has to teach; a schoolmaster is not a mere machine through which information must be conveyed for the benefit of the young, but he is himself the source of instruction to his pupils, the judge of its measure and quality, and of the degree of their capacity to receive it.' In the last two phrases are the germ of a professional tradition. It is true that from this time onwards many of the students had some experience of the teaching situation since they had been pupil teachers, and this may have encouraged the College to pay little attention to the practical aspects of instruction. But as early as 1835 there had appeared perhaps the first suggestion in an official publication

[1] R. W. Rich, *The Training of Teachers*, 1933, 22.

which pointed the way clearly to the eventual growth of Education Departments in Colleges, when a witness before the Select Committee on Education had drawn attention to the fact that teachers needed to be grounded 'in the principles from which methods and technique might be evolved'.[1] In 1847 the Minutes of the Committee of the Privy Council show that they too had a concern for the professional aspect. 'If we send forth the teacher to the discharge of his lowly but momentous duties with in most cases only a moderate range of attainment, let us provide that he have acquired such a readiness on all that concerns the art of teaching as will render his knowledge at once available.'[2] They did nothing to implement their wish. In 1856 the 'study of the practice and art of teaching' figured in the College curriculum. In the following year an H.M.I. watched the Normal Master (head of the practising school) give a lesson on Plato(!) and lessons by other lecturers; he remarks 'I did not notice at any of these lectures any reference to the method of teaching or the special object of a Training College.'

During the 1860–1900 period when the College catered for Queen's Scholars the average entrant was the 800th on the national list, for they did not include those favoured pupil teachers who in urban centres could take advantage of the Central Classes to advance their education. The curriculum had to be an extension of the Elementary curriculum, and in Dover Wilson's words 'narrow, illiberal, and inadequate'. But by the turn of the century the denominational colleges were beginning to feel the competition of the new Day Colleges, which, being founded adjacent to Universities were closer to the latter's attitude of teaching Education as a subject in its own right. Day Colleges were able to recruit a better level of staff, admit from a wider range of students since they were inter-denominational, and could provide teaching practice over a wide area instead of an on-site practising school. The College responded by developing a professional side of two graduate Normal Masters.

After the war the Burnham Committee Report of 1925, noting that schools were now providing a secondary education, entertained the suggestion that only a short professional course of one year was needed for Elementary School teaching. But the two-year course survived on the ground that more time would be devoted to professional work, be available for personal development and particularly the development of a sense of vocation. 'The subjects', they wrote, 'should be looked at as material for studying teaching method and for acquiring ability to teach them in school.' The concept of colleges as part of the system of Higher Education was not pursued at all. The College, we have seen, took a different view and concentrated on advanced academic work. In this the central issue of the post-1945 era was foreshadowed: the tension be-

[1] Rev. R. J. Bryce, before the *Select Committee on Education, 1834, Minute of Evidence,* para. 1036.

[2] Committee of the Council on Education, *Minutes 1847–48,* 587.

tween the long term aim of gaining recognition as genuine institutions of Higher Education not mere teaching factories, and the short term aim of servicing the profession with appropriately trained and educated teachers. The tension is central to the concerns of the Robbins Report and the working of the Binary system. There can be little doubt that up to the present the long term aims could best be served, from the point of view of the College as an organization, by securing an ever-growing reputation for academic standards as these standards are perceived in University circles. To the pursuit of this aim uninterrupted teaching terms and singleness of purpose on the part of the students is highly important; curriculum and professional studies together with teaching practice, which interferes with the smooth running of lecture courses, are an obvious hindrance. The resulting development has been along the path of making the professional study centre on an amalgam of academic studies in psychology, sociology, history and philosophy of education combined with the use of the middle year of the course for a form of field work in child study and teaching methods called study-practice.

The College reopened in 1945. In a seller's market for teachers, there was nothing to fear from the countervailing power of the consumer. Growth continued to be the latent objective, and with it growth in reputation which would enable the College to retain its position as a 'first-choice' institution. There was first a twelve-year period of steady growth and consolidation after McNair, then, from 1957 accelerated growth in preparation for the three-year course, and finally, a period of explosive growth in the Robbins era which ended when financial stringency began to be felt in 1969. The growth was very skilfully managed, but it inevitably led to differentiation, from size alone. It also involved differential responses by separate parts of the institution to different sub-environments, instead of the former College-wide unitary response.

First the religious response. The College reopened under a newly appointed non-clerical Principal. The Church continued to pay a decreasing share of the capital costs of post war expansion. The Governing Body continued as stipulated in the foundation deed until 1965 when a new Instrument of Government was approved which provided for wider lay and academic representation.

The office of Chaplain was separated from the appointment of Head of the Department of Religious Education. In the Chapel largely orthodox devotional life was maintained, moving, if anything in the direction of high churchmanship, with more frequent communion and closer contact with the monastic stream of Anglican thought. The R.E. Department responded differentially to the particular sub-environment represented by contemporary theology and religious sociology, the modern movements within the Church and the growing controversies surrounding religious education in schools; three developments which

interpenetrate each other. With a leading figure in the field of religious education in schools in charge, the Department recruited staff with special qualifications in these areas and developed a course recognizably in the spirit of the course in Religious Studies of some newer Universities rather than the old theology courses. The religious life of the College became more characterized by the vigorous life of this department and the large number of students attending its voluntary courses, than by formal worship. Considering the past traditions of the College which had been sustained by a distinctly orthodox, cloistered, even inward-looking way of thinking, the remarkable openness of the R.E. Department to new intellectual and theological currents and rapid developments in religious outlooks in respect both of doctrine and the presentation of religious ideas in schools, represents a major differential adaptation in the College.

Similar differentiations appeared in the Subject teaching areas. The new post-war atmosphere was created by the McNair Report and the 1944 Act which together set in motion a major reorganization of teacher training by linking the Colleges more closely with the Universities. At the same time there was a crash programme to meet the unparalleled needs of the situation of teacher shortage as it then stood. Even before awareness of the 'bulge' had developed the estimate of trained teachers needed was fifty to ninety thousand compared with a total pre-war teaching force of 200,000, some of whom were untrained. The Colleges thus embarked upon changes that were destined to be permanent rather than merely post-war temporary expedients. In the case of St. Luke's College the effect was that the old pre-war pattern of preparation for external degrees was abandoned completely. The new objective was growth and the achievement of a national reputation. During the sixteen years from 1946 to the first three-year course in 1962 the College expanded from 223 to 600 places. It carried through a building programme that made it one of the largest of the Voluntary Colleges. This growth and its inherited secondary orientation, created conditions for more specialized teacher preparation. Thus in the 'fifties when the shortage of mathematics teachers and changes in the syllabus led to the School Mathematics Project and the Nuffield Mathematics Scheme, a maths lobby on a national scale was generated sufficient to constitute a special sub-environment. The Mathematics Department in College responded to this new sub-environment by introducing newly designed courses, Certificate and Diploma third-year courses, in-service courses, considerable activity in schools, steady expansion of personnel into the new fields and several publications.

Similar developments, supported by outside movements were taking place in Science and P.E. Towards the end of the 'fifties the Ministry encouraged large general colleges to formalize their specialist elements into 'wings', so bringing them in alongside the specialist colleges whose standards were an external yardstick because of their pre-war existence.

Third-year courses had been instituted also in these fields and were extended. Once set in motion the process of growth in size, extension of advanced work, and increase in reputation tend to be mutually reinforcing. More students name the College as 'first choice', and if the number of first choice students exceeds intake quotas, the College can pick and choose. In this way it achieves a measure of control over its environment and is likely to choose the most promising students. Such a selection process reinforces the standards and reputation of the College and in turn produces more first choice applicants.

The 1925 Report *The Training of Teachers for Elementary Schools* published by the Board of Education contained a note of dissent which called for increased rigour in the academic work of the Colleges. We have seen how one response to this was increase in degree work. The McNair Report ignored this aspect of the debate. Growth on a wide front of necessity had to replace academic aspirations. Subsequently sixth forms increased in size and efficiency, and Colleges began to receive entrants who had normally completed a course to 'A' level rather than matriculation. By the 'fifties the average college student had followed a course similar to the intending university student, though usually with less success, and was indeed frequently an undergraduate manqué seeking an alternative form of higher education. The 1957 'Pamphlet 34' and the H.M.I. document *Scope and Content of the Third Year Course* again raised the question of academic rigour. The Robbins investigations showed the rising standards and the overlap in ability range between university and non-university institutions. This trend was consummated by the introduction of the B.Ed. degree. In the College studied 15% of the entry are now following a B.Ed. course; the number will probably rise and an Honours degree is a possibility. There are significant indications of a demand for a College course which will prepare students who at present lack entry requirements for the B.Ed. course to read for the degree during the early part of their teaching career, through the Open University or part-time courses now in process of being instituted. This university-orientated area of the College's work represents a third specialized sub-environment to which Departments of the College respond differentially, by adapting their courses, selecting their students and perhaps most significantly of all, by recruiting their staff.

The most obvious differential response is in the professional area of the College work, marked by the emergence of a large Education Department. Until the post-war period subject teachers supplemented the Master of Method in respect of the professional aspect of training, which was quite certainly limited in scope and effectiveness. It was not until the late 'forties that an Education Department as such was set up. But major developments had been taking place in the meantime outside the Colleges, the most notable being the Emergency Scheme for training teachers. Under this scheme about 20,000 mature students passed

through a very intensive course which necessarily paid great attention to the technical proficiency. The scheme was staffed predominantly by personnel from outside the Training College milieu, and a distinct philosophy grew up within it. As the Scheme was wound up in 1950 its personnel began to move into College posts, possibly in relatively greater numbers into the expanding Education Departments, than into the subject fields. They brought the newer philosophy and practice with them. The consequence was a greater sensitivity to the professional and technical aspects of teaching, and further development in an Education course which went beyond method into principles, and into the disciplines of psychology, sociology and philosophy. This increased when the need to hurry through a two-year course was removed in 1962.

When degree work was recommenced in 1966 the subject Education was the essential requirement for all students and gave the degree its particular character. St. Luke's is doubtless untypical in the slow rate of growth of its Education Department until the late 'fifties; though it was not until that period that personnel with higher qualifications in the supporting disciplines as well as having teaching experience became available in reasonable numbers. For the initial period up to the mid-'fifties the staff ratio of students to educationists was about 100 to 1. But as this ratio improved to its present figure of about 60 to 1, new responsibilities were added to the Department. The Primary Course expanded as more mature students and women came forward; the early one-year courses, and the post-graduate course which replaced them made relatively greater demands on the Education Department both in organization and teaching load than on other departments. Responsibility for teaching practice and specially intensive use of Education Department staff in supervision was accepted. Finally a special relationship with the schools—Study Practice—was worked out within the Education Department and developed rapidly under the three-year course.

The requirement of Education as a compulsory subject for B.Ed. at length caused the recognition of Education as a subject on equal terms with those of the other Departments. But equality of staffing has not been achieved.

The striking aspect of this differential adaptation was that it was much less the result of direct external pressure groups, after the influence of the Emergency Scheme ended. There was no organized national supporting movement but rather the development of a favourable atmosphere arising from a variety of influences; these ranged from the schools' need for a new post-elementary curriculum, the growing power of the child study movement, the developing links with the universities and the growth of such bodies as the N.F.E.R. It was in essence a development resulting from amongst the educationists themselves to put the professional training of teachers on a systematic footing and a determination to attain parity of respect with the other disciplines.

The unitary notion of a college-wide adaptation to changes in the environment was less evident after the 'fifties. Whilst assent is given throughout the College to common values and aims, these aims are expressed at a high level of abstraction and in language so general that they may be appealed to in order to legitimize a wide variety of operating procedures. It seems likely that the originally unitary goals of the College have developed into a cluster of partially discrepant sub-goals which the differential response to particular sub-environments have thrown up. Overarching these are such goals as the desire for growth, the seeking for national reputation, the commitment to a programme of educational and even social reform. It seems likely that the College may be profitably viewed as Cyert and March view the business enterprise, that is, as a shifting coalition of members pursuing a variety of goals simultaneously, with overlapping frames of reference.[1]

It should prove possible to test this view empirically in the case of enterprises such as Colleges of Education.

[1] R. M. Cyert and J. G. March, *A Behavioural Theory of the Firm*, London, 1963.

EFFECTIVENESS IN EDUCATIONAL ORGANIZATIONS

In the growing body of research devoted to improving knowledge of organizational behaviour, there is as yet little in Great Britain which has concerned itself with educational institutions.[1] Organizations (industrial firms, armies, churches, prisons, schools) are structured and coordinated collectivities formally established for the explicit purpose of achieving certain goals. They are major sources of purposive change in society because of the great resources they exist to control and deploy. Educational organizations are the major source of skilled manpower to all the others. Their effectiveness must be a matter for concern. But just how to improve the effectiveness of educational organizations is a very complex problem. A principal reason for this is that there is no clear agreement about, much less measure of, effectiveness in service organizations generally - service organizations being those which process people rather than materials. This article seeks to draw upon what has been learned about other kinds of organizations in order to clarify at least some of the matters that would be involved in a study of effectiveness in educational organizations.

Since the Second World War the most striking characteristic of organizations, whether commercial undertakings, hospitals, government departments or institutions of higher learning, has been that of rapid growth and differentiation. Technical innovations in production and control methods and the demands of the mass market in an affluent society have created conditions favourable to the emergence in the industrial field of large corporations with many production divisions. Among service organizations new and more comprehensive social tasks, backed by much increased resources, have opened the way to similar developments. But here, notably in the tertiary sector of education, growth has often been no more than a magnification of the traditional pattern without fundamental structural change.[2] The college of twelve hundred is the old college of three hundred 'squared-up' to four times its size. In business concerns the ad hoc patterns evolved by the early entrepreneurs have more frequently shown themselves inadequate to meet the demands of new technologies and production methods. In consequence, faced by the problems generated by rapid growth, managers and administrators have shown interest in redesigning their organizations.[3] In some industries, such as electronics, where innovation is very rapid the process of internal redesign of the organization is almost continuous. Some form of adaptive response to changing conditions, analogous to a learning process in humans, is 'designed into' the organization as far as present knowledge allows. Such a feature depends on continuous monitoring of operations, together with systematic study of the market, design trends and so on, to provide comprehensive 'feed-back'. This information is a basis for decision-making in the hands of those who are piloting the enterprise and supplements the traditional intuitive 'flair' or the more dangerous method of waiting for problems to arise and then solving them by trial and error. As the American operational research consultant, E. A. Johnson aptly pointed out, when a single error can upset costly operations, trial and error may become trial and catastrophy.

Because of the great complexity of problems connected with the design of large enterprises, specialist consultants from a number of fields have come forward to join in the

search for solutions. In addition to business consultants, such as the Tavistock group in Britain, operational research teams of a type developed during the war, which often include social scientists and psychologists, have entered the field, as have mathematicians, systems and communications engineers, ergonomists and others. The 'one-off' solution to a specific problem is still a basic procedure; but such short-term solutions are all too frequently left behind by further change either inside the enterprise or in the market conditions. Hence there has been a convergence amongst several disciplines in the search for general principles applicable to organizations, principles which can be articulated and exhibited in abstract models. Classical organization theory[4] offers one cluster of principles at a very high level of generality. Middle-range formulations, more specific and usually applied to one type of organization, say hospitals or batch-production industrial enterprises, are appearing steadily and the comparative study of them is a major aspect of courses in management. It is now possible to attempt the analysis of large organizations with the help of a considerable body of conceptual tools. This is a field, of course, in which there is a particularly pressing need for conceptual integration, and this can only be achieved through continuing attempts to square theoretical formulations with hard facts, by thorough case studies of a variety of organizations. So far as a systematic theory of organizations could be built up, it would underpin administrative procedures by providing them with a theoretical rationale rather than leaving them to rely on experience and tradition. In administration as elsewhere, there is nothing so practical as a good theory.

In order to illustrate the problems involved in transferring insights gained about organizational behaviour in industry to an educational setting, it is useful to begin from the distinction between efficiency and effectiveness. Although space does not permit detailed illustrations, what follows stems from the writer's study of a large college of education.

Efficiency is closely linked to the idea of productivity and is much more at home in an industrial than in a service context. What is required to relate these two ideas to an educational institution amounts to a complicated accountancy exercise in order to determine whether output is rising proportionately to input of resources over time.[5] In a partly residential institution such as the college under study, the main 'inputs' are academic salaries averaging about 45 per cent; wages, about 16 per cent; and educational costs (i.e. directly related to the teaching function: library, school practice, equipment and materials for lecture-room use) at about 8 per cent of a total operating cost of £100,000 a year, in round figures. In the four-year period 1964-67 on which these are calculated, the capital input was about £182,000 from central government funds, together with about £45,000 from other sources, partly earnings achieved by letting the college buildings during vacations for courses. Generally these can be regarded as average costs since they are related in various ways to the intake of students. For example the staff ratio is constant at 1 : 11 apart from the time lag between student intake and subsequent appointment of staff. The dark area of inputs is, of course, the money expended in grants. Clearly, as a college takes in more and more non-resident students the running costs rise only slowly and calculably, whilst the total cash disbursed in the form of grants rises rapidly and in a way which calls for very sophisticated procedures to estimate, since it is related to personal circumstances of each student and shared between L.E.A. and parents.

The 'outputs' consist of qualified students at various levels, three-year general and specialist, two-year post-graduate, and supplementary (in-service) courses. Over the four-year period mentioned internal operating costs rose by 18.4 per cent whilst student numbers rose by 38 per cent.

Unless it is possible to take account of the rise in grants paid to increasing proportions of non-resident students, true unit-costs cannot be established.

Further indicators of efficiency can be arrived at by considering the intensity with which the plant is used. This involves a complex task of defining categories of teaching spaces. A music room containing a single grand piano, or a laboratory, is a rather inelastic teaching space, whilst a Geography room which holds twenty students working with maps on tables, may with the tables stacked hold sixty students for a lecture or film. A first 'global' approach, however, would be to establish the amount of teaching space in square feet and then relate this to student numbers; both will vary over time. Again, the length of working day and week, and the number of weeks per year (allowing for students not in college because they are engaged in a distant teaching practice, for as long as eight weeks) need to be taken into account.

This very brief description by no means does justice to the complications, both conceptual and mathematical which quickly arise in such a study. Yet efficiency is an inherently simpler notion than that of effectiveness. It is well known that industrial enterprises can be highly efficient in manufacturing the wrong product; for example, manufacturing to suit the convenience of the production departments rather than the real needs of the market. In a well-run business, of course, there is good 'feed-back' from sales and attention to 'feed-back' by production management; a self-correcting mechanism exists. It is easy to see that this is far from being the case in educational organizations which conspicuously lack direct 'feed-back' from the markets they serve. It is doubtful whether a college of education would regard 'feed-back' from the school system as an important factor in governing its own operations; equally schools would have difficulty in distinguishing between personal qualities of teachers and the effects of college training. Effectiveness means efficiency in achieving the goals of the enterprise. If, then, the goals are diffuse, the product hard to evaluate except in a very general way, and the channels for 'feed-back' virtually non-existent, the problems connected with the notion of effectiveness in a college of education are formidable indeed.

It is the wider aspect of adaptive change which makes it necessary to pay attention to the notion of effectiveness. Changes in the educational system as a market frequently occur; in the mix of skills needed (for example, to deal with the 'reluctant conscripts' when the school-leaving age is raised), in the ratio of men to women, of primary to secondary, of specialist to non-specialist teachers. At the 'input' end, changes come about in the proportion of students willing to accept residence, in the proportions of graduate, two- or three-year students and in the qualification level of entrants who come forward. Changes in teaching approaches (such as creative writing, new mathematics), in the relative popularity of subjects (such as the swing away from science), the appearance of new subject areas (such as, environmental studies, drama, sociology, compensatory education) all influence colleges from outside, and they never operate singly. A college which concen-

trated on maximising the percentage use of teaching spaces, expanding smoothly without painful changes in the traditional pattern, could conceivably be very efficiently turning out an obsolete product; the teacher who was needed ten years ago. Prisons have increased their efficiency by the three-to-a-cell method; but at some cost to their effectiveness if anything beyond custody is expected.

The practical objective, then, of a theory of organizations would be to contribute to the study of effectiveness rather than just efficiency. Efficiency, after all, presupposes that the product and the technology remain the same, but the system is run faster, longer or more intensively. Effectiveness embraces the notion of adaptive response to change. At the research level, therefore, the academic objective of such a theory would be to seek a better understanding (a) at the level of the enterprise; how it maintains a requisite adaptation to the environment in which it operates and an equally requisite internal integration; and (b) of the individual and the situation in which he works, and how changes in the organization of the enterprise reflect back on the individual. In Prof. Lupton's words, an organization is 'a system of structured activities complexly related and in a complex environment'.[6] Any study of effectiveness must be led to study the interactions of members of an educational institution, in terms of direction, intensity, frequency, content, etc. It must also concern itself in detail with the way in which the institution transacts with the environment. A useful first step is a simple 'input/output' model which shows (i) how financial, human and technical resources are located and imported; (ii) how, during the operating process, investment, knowledge, skills and services are brought to bear on the students flowing through the institution; and (iii) how the output of qualified leavers is placed in society. The three areas are inter-related and connected by links of 'feed-back'; also the points at which decisions have to be taken can be exhibited as in Table I.

Because ideas have been imported into it from fields as different as psychotherapy and engineering, existing theory resembles a loose sheaf of insights and conceptualisations articulated only in a rather primitive way and at several levels. The basic research problem is how to draw from this imperfect theory principles of selection amongst the almost infinite mass of data which could be collected about any large enterprise. One of the major reasons for pursuing theoretical discussion is that patterns or models which apply to more than one type of enterprise (even if the detail is not clear) carry greater conviction. If a cluster of common features and regularities can be articulated to the point where the resulting model can be applied to a factory, a college, a hospital or a prison, a considerable advance has been made. There is here an anology with personality theory in psychology. In both fields there is a historical sequence from early traditional models to a contemporary situation where a number of not obviously reconcilable models compete in the academic market place. The parallel arises particularly in service organizations because there the major investment is not in plant and equipment but in the human resource of trained professional manpower; the plant is there to provide an optimal environment. Human beings cannot profitably be viewed as a special kind of machine; they operate 'free-style' in relation to other human beings and there is no direct measure of whether they are operating well. Just as a man achieves an internal integration and characteristic way of dealing with his environment which we call his personality, so a group of human beings jointly pursuing some end achieves an integration and characteristic way of dealing with the world outside.

Table I offers the researcher a 'clear-out' strategy as regards the college's major transactions with the environment. 'Inputs' and 'outputs' can be classified and quantified. Much of the data exists in records; if this is extracted for a ten-year period (the period of explosive growth in college size) some indices of efficiency begin to appear, as well as indications of adaptive trends. But this is the simplest step. What is conspicuously absent from the table is any line of approach to the complex web of human relationships which make up the organization at work, both in its formal and informal aspects. Relationships among people can be of many kinds; of power, of prestige and influence, of working co-operation, of informal friendship, of hostility and conflict. Such relationships are not easy to establish, for A may claim a relationship with B which B does not recognise, or more likely, which B says is of a different nature or degree of intensity. The language available for the discussion of complex realities of behaviours, interactions and relationships is inexact, and it is difficult to present results in an objective, verifiable manner. The concept of saliency (i.e. psychological prominence), for example, is clearly an important attribute of relationships, but it can only be expressed objectively by a ranking procedure, (A ranks B; C; D ....n), and the results presented in the form of a matrix. Such tools are hardly sharp enough yet to inspire a high degree of confidence. What is certain is that with the conceptual tools adopted from other disciplines we can go a good deal beyond simple description, anecdotic material and subjective impressions.

Finally and perhaps most difficult of all, organization is relative to an end, it differs from mere order in this respect.[7] No structural diagram, flow chart or communication map can indicate the direction in which the enterprise is going. In the realm of ends, goals, objectives, the researcher is concerned with desired future states, preferences. These call for enquiry not into what can be inspected (such as communications, transactions) but into what the members of the enterprise carry about in their heads, not always very consciously. They also call for justifications, not merely what is to be preferred but why and on what grounds The enquiry thus engages with values, what constitutes a 'good'; this is well known to be the quicksands of social science. Central topics are the degree of consensus existing within the organization about ends, the sources of pressure towards agreement, such as tradition, common cultural training, selection procedures, job 'socialisation', or conversely, pressures towards disagreement such as differential perception of social needs by sub-groups, vested interests in obsolescent processes, different social origins or work experience of groups in the enterprise.

In this area there is not so much help to be gained from the study of industrial enterprises, though there are signs that even there, more attention is being paid to non-economic views about goals. One may meaningfully talk, in Elliot Jaques term, of the 'primary task' of a pin factory; but it is not so meaningful, indeed it can be misleading, to talk as if an educational institution had but one primary task. Hughes brought this out when he wrote that 'Compared to the restrictions, resistances and distortions of purpose assignments and efforts in school, a mental hospital, a social agency or a prison the much studied restriction of production in the factory is simplicity itself. In the factory there is at least a fair consensus about what the object to be produced shall be. There is often no such consensus in institutions where things are done for or to people.'[8]

What the researcher into the organizational behaviour of large educational institutions has to do, then, is to borrow as much as possible from the methodology and conceptual apparatus developed by the study of industrial enterprises, and seek to add to it a further extension which seeks to cope with the problem of plurality or multiplicity of aims. If the conditions mentioned by Hughes are not seen as inevitable constraints to be lived with, but a problem to be solved, administration is no longer a small 'a', in-tray/out-tray matter; it becomes the very serious and strenuous task of steering large, complex and very valuable enterprises through difficult and unstable environments. The navigational aids, such as they are, of organization theory, are not to be despised.

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1. But see: G. Hutton, Cohesion and Differentiation in a Secondary School (Paper presented to the Scottish Branch of the British Sociological Assoc. 1964); C. Sofer. The Organisation from within (1961); E. L. Brink, 'Decision making in a university system', in Operational Research and the Social Sciences, ed. J. R. Lawrence (1966); R. A. King, Social Organisation of the School (Schools Council research project, Exeter University Institute of Education, Interim report).

2. Valuable remarks in this context on the origin of the traditional pattern appear in E. Midwinter 'Non-events in the History of Education', Education for Teaching (Journal of the A.T.C.D.E.) 71, Nov. 1966.

3. W. B. D. Brown, Exploration in Management (1960); T. Burns and G. M. Stalker, The Management of Innovation (1961).

4. N. P Mouzelis, Organisations and Bureaucracy (1967) provides a useful up-to-date survey of this field.

5. Universities and Productivity, Universities Conference, Spring 1968, Vice-Chancellors and A.U.T. Joint Consultative Committee.

6. In a lecture delivered to the Operational Research Soc. and the British Sociological Assoc. Joint Conference; Organisational Research and the Behavioural Sciences, Imperial College, December 1968.

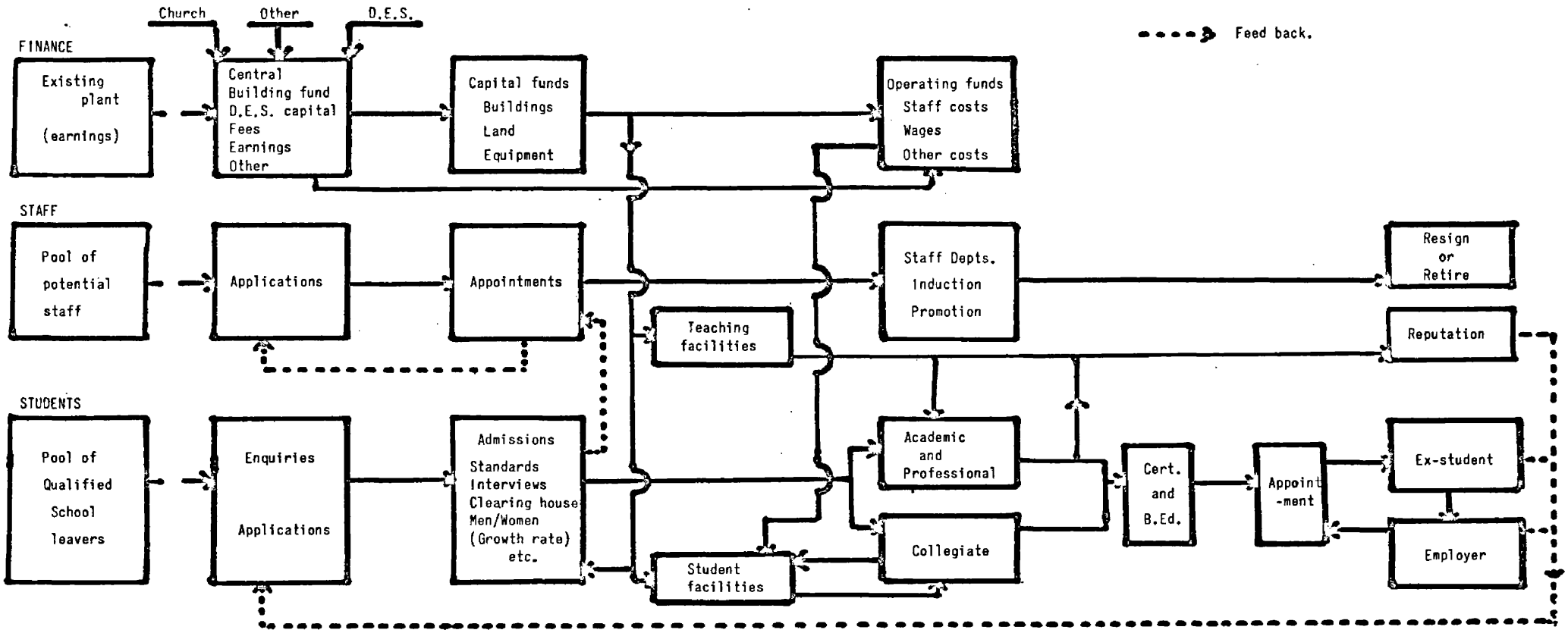
7. Quoted in C.Argyris, Understanding Organisational Behaviour (1960), p.4.

8. E. Hughes, Men and their Work (1958), p.76.

Dias

TABLE 1

Flow diagram



Curriculum Decision-Making in a College of Education

JOURNAL OF CURRICULUM STUDIES

Volume 4/Number 1/May, 1972

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In any enterprise major decisions are attempts which the organization makes to respond adaptively to the situation. Unlike those of business or industry, educational decisions do not seek primarily to optimize measurable returns from given resources. A good decision here is one which releases energy to be invested in appropriate activities unhindered by restrictions, resistances or distortions of purpose. It is not achieved by the use of sophisticated techniques to find the best trade-off between costs and output; nor, except rarely, by empirical investigations of technological alternatives. It arises out of processes among people: strategies, explorations of ideas, arguments, patterns of interaction amongst participants—in short, out of complex verbal behaviours of which little remains behind in the form of documents. To analyse such processes the questions which need to be asked are, who participates? what are the roles? what were the prior mental states of the participants? what changes in belief systems took place? by what means? what have been the outcomes?

Essentially what has to be maximized is the group's satisfaction with the solution. A wrong decision is not usually catastrophic; this is a low-risk situation. Usually it is only the administrative consequences of a decision which need to be forecast in detail: such matters as the deployment of staff, the use of facilities and equipment, the distribution of time. For the rest, the deciding group in education have much greater domination of the environment than business people usually have. Within fairly wide limits laid down by the national culture, educational practice and national-level regulations, they have considerable autonomy and freedom to choose; and they often have plenty of time. The only major constraints are money and external examinations. A wrong decision is likely to be one which either promotes, or stems from, a special state of mind in the deciding group, which is out of touch with reality: an unreal goal or a false consensus. The test comes when the decision is implemented. Reality breaks in and a reappraisal becomes urgent. It is not uncommon in such circumstances for attention only to be directed to details, in which case the decision recurs and the old conflicts are worked through again. A certain amount of this happens anyway. It is, in its benign forms, part of the system-maintenance mechanism and allows for the discharge of anxiety and frustration; consequently it supports the integration and morale of the group as well as renewing the commitment of members.

Considering, however, the amount of research that goes on in schools and colleges we know little of the decision processes which operate inside them, and particularly little about group decisions made inside sub-units such as departments.[1] In the matter of curriculum innovation we may know something of topics and outcomes, but we have almost no empirical evidence about processes of decision—no doubt because they are so complex and are carried out in conditions not easily observed except by the participants.

As part of a much larger three-year study of a College of Education the writer was able to examine the decision processes concerned with a major curriculum innovation though he was not present at the meetings. The method was to interview successively, and in some cases repeatedly, all the participants. All knew the writer and understood his purpose so that the research was collaborative; many documents were made available to the writer and he was able to check his interpretations by feeding back the collated information to the group both verbally and as a working paper. The fieldwork was spread over six weeks and took place during the early implementation stages of the change.

The decision concerned the content and method of the first part of the Education Course for 360 first-year college students. During and before the academic year 1969-70 tutors involved in this work operated a course the main lines of which had been laid down in the early sixties when the three-year course was instituted. Students attended two year lectures and five seminars. Staff teaching the course varied somewhat from year to year and minor variations in method and content were discussed at group meetings; but the principle was that, provided basic areas were covered, each tutor went about it his own way. During the period of explosive growth of the college in the middle and late sixties the first-year course came to be used as an induction for new staff members. By the end of the decade there had developed a well-established First Year Panel of staff whose school experience was very recent. This numbered ten or eleven, or about half the departmental staff. By now, however, the seminar work had become to some extent independent of the lectures and was coordinated by hand-outs prepared by any panel member who was expert in the topic of the week. Around these the discussion and activity centred, though it was not obligatory to follow them in close detail.

A major precipitating factor in the eventual innovation was an abrupt change in the personnel of the panel at the beginning of the year 1969-70. In the previous year the panel had absorbed three new members; but now it had to absorb five more, leaving only two or three veterans who knew the cycle well and were recognized as senior members. Hence, as one of the newer members remarked, the tradition was not strong and he, at any rate, was "prepared to be told, but critical; not accepting that the old method was essential". The "old method" had been partially codified by the two senior members who had brought about the existing administrative structure;

on the whole they considered that it was premature to change it. But the new members were more orientated to flexibility and choice, particularly as they started in the first week of the college year with little or no knowledge of the course sequence.

All the new members were qualified at the Advanced Diploma or M.A. level in Education but differed widely in their interests, former school posts and the age groups of children they had taught. There was, not surprisingly, difficulty over the hand-outs, some of which seemed too specialist and to exhibit "a frightening expertize" occasionally intended, perhaps, to impress colleagues rather than to help students. The knowledge and reading required fell differentially on the staff: "We all had difficulties in different areas." Feelings of uneasiness were also aroused by the objective-type multiple question assessment which permitted one group's performance to be compared with another's.

Quite naturally then, as the largely reconstituted panel began to meet for monitoring and administrative sessions, dissatisfaction grew. An early task was to prepare the questions for the assessment test; this led to a review of ground covered and to clarification of ideas. It also lowered thresholds of anxiety. Faced by questions proposed by other members, tutors became concerned about the likely performance of their group and about the undesirable "backwash effect" of the evaluation procedures used on the course. Members worried lest their initial performance in college should seem to be on trial. It was soon clear that the existing course could not contain the potentialities of the new staff and was doomed.

The main outcome of the first term was that it produced a readiness for change in the group, which was an important preliminary. The second phase opened with the commonsense proposal that division of labour in preparing topics should be formalized; tutors assuming responsibility for leading the team should produce a draft hand-out well in advance and hold a teach-in for colleagues. Thus the collective wisdom of the group could be embodied in the final version. Unfortunately a document prepared by a member of the panel in another connection was at this time rather severely handled in discussion. After this no one wished to repeat the experience. Tutors avoided the problem by duplicating the hand-outs at the last minute so that colleagues were presented with a *fait accompli.*

It should be stressed at this point that the respondents, when they discussed these experiences with the writer, indicated that this was a period of trouble and anxiety; but they did so without rancour or criticism. In recalling difficulties and problems they spoke with animation and enthusiasm, and stressed the group's achievement in facing them without bickering or cliquishness. Personal relationships were robust enough to support the group spirit despite divisions of opinion sometimes of a fundamental kind.

This phase developed into the decision proper, that is, the attempt to restructure the course by mutual agreement. On the one hand, in the formal panel meetings,

there was a general and prolonged discussion which sought to group the course topics into coherent and intelligible wholes instead of a rather random galaxy at the centre of which was the notion of "the child". Other proposals were (*a*) to start with and systematically exploit the students' own contemporary experience as recent school leavers, etc., (*b*) to introduce classroom techniques to the students immediately they entered college, or (*c*) to go out to schools for observation and build on that. At the same time that these ideas were explored in the regular two-hour panel meetings each week, an interpolated audio-visual aids course and the decision to split the groups in half meant that the hand-outs began to take on something of the function of study-guides, since the students now only had half the face-to-face contact with the tutor and were released for the other half to do individual work. This release of the students and their consequent demand for well-structured guidance was an important step. But the crucial notion of choice within the topics still lay in the future.

From this point, about halfway through the year, the discussion began to be carried on at two different levels. In essence the older view saw the course as linear, the topics being linked together like wagons of a railway train. Discussion centred on solutions of a "shunting" kind; that is, seeking a more intelligible sequence of the traditional topics in the hope that learning experience for the student would be made more cumulative. The idea of co-ordination by lecture courses and hand-outs persisted. This conception of the course was so clear that it was even given a name: the "fish-fingers" approach. The "fingers" or blocks of teaching could either be put in different sequences or, alternatively, thought of as spokes radiating from a core ("the child in all his aspects"). Various tentative diagrams of such patterns survive. The early documents and discussions embodied solutions all of which were brief abortive schemes; they permutated the topics of the traditional course without being able to break out of the rather narrow limits within which possible solutions were expected to lie.

But a newer view was incubating. Alongside the formal discussions a group of new staff began to work systematically on a more radical proposal. There was first of all the problem of relevance. The traditional course, it was felt, led to learning at a superficial level, leaving to the varied capacities of the students individually the task of forming a coherent and cumulative pattern. One of the new group of three, which came to be called "the ginger group", had experience of craft training in relation to the work of the Area Training Boards for apprentices. From this source came the idea of the "module of training", a package requiring the learner to undertake activities with given resources. The student would become responsible for his own learning, whilst the tutor acted as adviser, mediator, and provider of resources. Here was a new way of structuring the elements; but how to put them together?

Another member of the sub-group had long experience of classroom organization

in Junior Schools which operated the integrated day. He introduced the notion of "work units" and the organizational pattern of the Junior School classroom with independent working groups. The tutor would become a manager of the situation "rather than a pearl caster out at the front". The third member, whose research had been concerned with thought processes and the development of concepts began to construct some fully worked-out specimen "study units", and the group were ready to introduce their proposal as a pilot scheme alongside the next cycle of the reformed traditional course.

All this initial activity had been going on from early in the spring term until Whitsuntide, at the rate of a meeting a week supplemented by informal discussions. Two points should not escape notice. One is that much time is spent discussing whether there is, in fact, a decision to be made; whether this is the occasion to make it. There is a differential degree of urgency in the minds of the participants, some holding that only minor modifications are needed or indeed possible, others that much more radical solutions must be sought without delay. The search for new solutions obviously calls for time and much energy; these will not be made available until the group as a whole is convinced of the case for a major decision. Little is usually written about this very important phase, presumably because in business the pressures from the market and the production technology act more quickly to bring the need for change into the open. The second is that it is difficult to evaluate possible solutions until the group has explored members' belief systems and found out how they perceive the situation. This explains why the area within which solutions were expected to lie was so narrow; that is, the new solution lay not far from the old traditional course.

The "ginger group" had broken out of this narrow "phase space" (to use Stafford Beer's term);[2] the vital period could now begin. When each of the respondents had given me his account of these preliminary developments which came to a head round about Easter, I usually put the question, "Well, then, whatever took up all the rest of the time?" Many meetings followed this exploratory phase and represented a great acceleration of activity, indeed the really crucial phase of the decision. Now the meetings had a relatively clearly defined purpose, namely to decide between a somewhat revised traditional course and the much more radical "ginger group" proposal which was still only partially formulated. In examining these meetings I had in mind the rather simple, though certainly fundamental, discussion of decision-making in the work of March and Simon.[3] Were the typical processes analytical and problem solving? Or those of bargaining and persuasion?

From this point respondents were faced with the more difficult task of attempting to recall not simply a chronological sequence of steps, milestones, as it were, in the development of the decision, but the actual group processes which were characteristic of the meetings. Each naturally stressed the features which were salient to him; and what is an important turning-point, in retrospect, for one, is merely another routine

meeting for another. For one group of respondents a meeting held at Easter was of great importance. The vacation enabled it to last all morning, but also for the first time the Head of Department attended for the whole meeting. The traditional linear sequence of the course was once more considered, but by now the outline of the "ginger group's" alternative was available. According to one respondent the Head of Department "saw the structure of the new plan right away, and as he saw it so readily, it clicked". There was general agreement that at this stage any group within the panel might have produced a radical plan, "it just happened it was the 'ginger group' ". This might be taken as offering some support for the view that when there has been a sufficiently successful period in which the members have explored each others' minds, the old preconceptions limiting the "phase space" have been to some degree eroded; to have introduced a disturbingly new conception before this would have been premature, but now the moment had come. My first view was that the appearance at this propitious moment of the man-at-the-top to countenance the discussion and add the weight of his approval to the emergent solution was very significant. It was agreed at this meeting that there could be no question of a pilot trial of the new scheme alongside the traditional course since this would divide resources, break up the pattern of responsibility and threaten the much-valued unity of the panel, which rested, after all, on group responsibility. It was now an all or nothing decision.

However, and this is worth mentioning because of its significance for the methodology of inquiries such as this, when a draft working paper has been circulated amongst the respondents, another view was put forward. This held that the Easter meeting was not the turning-point and pointed to the fact that "we were still talking about hand-outs, no one had a study-unit on the table". According to this view the cautious senior members of the panel had resisted a radical plan by implying that the Head of Department was not likely to approve a major change, but when he had actually appeared he had demolished the notion that he was a conservative figure, and his attitude encouraged a general and energetic advance by the "ginger group" which only later resulted in a worked-out proposal. For the holders of this second view a later meeting, when a detailed study-unit was worked through, was the most significant: "Everyone went away convinced that they could do something like that." This got the panel out of the exploratory phase and into a genuinely productive set of meetings in the summer term. The circulation of a working paper in research of this kind is valuable as feed-back and to get clearance from respondents; but it also promotes discussion and leads respondents to search their memories to provide grounds for any alternative interpretations they advance. In this case it provided important data which had not been mentioned at all during the initial interviews.

When respondents' attention was fixed on this important period, I raised the question whether "the decision of principle" took long to arrive at. Their replies

showed clearly that it is artificial to separate decisions of principle ("shall we or shan't we?") from decisions about details and about implementation. The former can never be really firm until the latter have been worked through. There is a moment when a group can say "we shall!"; but it is only when the members have demonstrated to themselves that the new scheme is feasible in the actual detail of the operations that they can bring themselves to a binding, not a false consensus. This is not a sudden thing necessarily, taking place at one meeting; commitment emerges slowly and at different points for different people. Only one relatively sudden "conversion" was mentioned, and this took place, significantly, not at a meeting but as a result of a discussion between two members.

I asked all respondents to identify the "ginger group" and its supporters; also from whom resistance came and whether there were people in a neutral, uncommitted role. There was a considerable degree of agreement amongst the responses; and whilst I followed strictly the convention of not revealing to one informant information given in confidence by another, it was possible to check whether panel members saw themselves playing the roles ascribed to them by colleagues. I hasten to add that confidential information was in the form of personal interpretations and individual perception of roles and sources of conflict rather than of a "private" nature. When I had got this picture I asked whether the "ginger group" had to persuade the rest, and if so, whether there was any bargaining. Respondents naturally found this difficult. There was general agreement that the "ginger group" had at least one close satellite who was almost one of them, and was balanced by the two senior members. The rest formed a middle group who leaned on the whole towards the new plan. The veterans had a great stake in the traditional course which they had operated over a period of years; they carried responsibility as senior members of the panel, close to the Head of Department and keenly aware of the logistic problems presented by the proposed innovation. To them the new proposal was a boldly conceived venture which promised to be more satisfactory but which, owing to its unforeseen character, was surrounded with anxiety. To one member of the "ginger group" the basic process of the meetings was one of persuasion, "a weaning process" of the old leadership away from a false security in the traditional methods. To others in the middle it seemed very overtly a process in which the "ginger group" persuaded the rest, but particularly the two veterans. To the veterans it seemed that they bore the responsibility for seeing that the scheme was practicable and that the logistic features had been properly attended to, particularly as 360-400 students were involved. They perceived themselves not as conservative in principle, but as being more realistic about the administrative consequences, and resolved to head off any over-ambitious initiatives. The "ginger group", having convinced themselves, were in a state of contentment and equilibrium; those in the middle in states of partial acceptance ranging out to extreme doubt about their capacity to cope with the new teaching

role; and the veterans in a state of cautious conservatism and some anxiety.

There followed "a rather turbulent period" when the existing hand-outs were worked through to determine whether they were appropriate bases for study-units and whether the resources (film, tapes, duplicated material, access to schools, books, etc.) could be prepared ready for September. Many drafts refined the notion of the study-unit, and the concept of major and minor units emerged. The process was variously described. One respondent saw it as a process of reconciliation, adjustment and balance: it was necessary "to initiate people into the idea, yet keeping a safe distance" so that no premature decisions were forced through by enthusiasm alone before a real commitment had been secured. There might have been an element of covert bargaining in this since the essentially linear sequence of lectures was retained at any rate as a transitional measure. "It was a sop they gave us," one of the veterans admitted. The veterans had always clung to the lectures on the grounds that it was a waste of expertise not to give them, and that anyhow, when the word got around that a good lecture had been given, for example, to the postgraduates in college, the first-year students asked for it to be repeated for them.

Another respondent denied bargaining processes but pointed to the parties' tendency to "talk past" each other, rather than to each other. He saw this period as essentially one of persuasion by anxiety reduction. Everyone wanted to know "What will I have to do? How will it affect *me*?" and demanded a very detailed answer, not generalities. There was anxiety that people who had not been in college long enough to appreciate the complexity of the situation should not attempt an overambitious scheme, especially a scheme which would suit the skills and experience of some but would require major reorientations from others. There was anxiety about how the students' work could be assessed. In one view this anxiety "and almost hysteria" was projected on to the whole group by a few. It was summed up as a greater realization of "how long it takes to get a group of ten to shift"; all that could be said was that the group went on and on at the details until a working agreement was reached. Anyone was at liberty to include his own favoured area as a study-unit; so that all members could get a feeling of participation and importance, the chance to influence rather than just accept the eventual scheme.

The solution was a compromise which retained the lectures and presented the students with a repertoire of study-units within which they had a wide choice of content, method and conceptual level. This decision set the tutors free as it did the students. The latter could choose what suited their needs and views about relevance, and could rely on detailed guidance during their longer free time. A work folder provided the basis of assessment. The tutor could run his group on the model of the integrated day classroom or in any way he found feasible. Lectures were not compulsory, but were geared to central areas of the study-units and varied to include other communications than straight lectures, so that they came to be called "Monday-

morning happenings". But the compromise mobilized consent and marked a major step in a new direction. The inertia of the system had been overcome and further adaptive changes would be easier.

The theory of business decisions has achieved a high level of sophistication; it calls on mathematics, computing science, logic and other advanced tool subjects. But it is primarily a theory of markets orientated to future behaviour of producers, competitors, consumers and governments. Though judgments form part of the inputs, many other parts consist of quantifiable elements; the strategy is, at bottom, that of evaluating all the elements separately in numerical terms so as to find the best "pay-off sum". However seductive in presentation, decision theories of this type are of little value for the more important and common types of educational decisions, particularly in the curriculum area. Here virtually all the in-puts are neither simple nor quantifiable nor likely to be perceived and evaluated similarly by the various parties to the decision. They are not based on observations or predictions of behaviour. Rather, the important in-puts are what the participants in the decision carry about in their heads: belief systems and ideologies about values and preferences, about goals and priorities ranging at the extremes from the doctrinaire utopian to the resignedly defeatist; knowledge of the differential possibilities of various types of communication (ranging from simple speech to complex combinations of stimuli such as C.C.T.V., models, or learning programmes) according to the aspect of the subject that is being taught; aspirations and anxieties connected with the political, social and career systems within the institution. The model for such decisions is not that of business but that of diplomacy.

The professional status of teachers is bound up with the part they are able to play in decisions about the curriculum. But if participation in such decisions is the test of professional status, it makes heavy demands. Educational decisions are rarely final, take a great deal of time, usually involve anxiety and threat to harmonious relationships, and are frequently the prelude to more effort rather than less. No decision theory will produce the rules when what ultimately has to be changed is ourselves.

NOTES

1. M. PESTON, "Towards an economic theory of higher education", *Higher Education Review*, I, 3, 1969.
2. STAFFORD BEER, *Decision and Control*, Wiley, 1966, p. 57.
3. J. C. MARCH and H. A. SIMON, *Organisations*, p. 129, Wiley, 1958.

Course Construction and Student Participation

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In late 1969 the members of the foundation staff of La Trobe University School of Education began the task of creating the school's first course for the postgraduate Diploma of Education. Students were to be admitted in the spring of 1970.

It is no surprise that great attention was paid to the problem of the relationship which should obtain between the "feeder", "contributory" or "foundation" disciplines and the practical business of classroom procedure, which was to be the students' responsibility after the year's course. It was decided that whatever was offered in terms of academic study must be dominated by a realistic application to the activities of the teacher as they would be encountered.

The relation between the various theoretical pursuits is a separate problem again, particularly when they must be accommodated within the space of one year. A programme of studies can be produced, which is all too often, as Hirst describes:

> . . . (e)ither a series of unrelated or even competing theoretical pursuits, or a confused discussion of educational problems where philosophical, psychological, sociological or historical and other issues jostle against one another, none being adequately dealt with.[1]

A third consideration was the student himself. As Perry has pointed out, a modern society's system of schooling could never be manned if the requirement was that every teacher within it was vocationally dedicated.[2] Most students approach the postgraduate training year with a basic good will for the prospect of an educational career, rather than with a burning desire to teach. Nevertheless, much of the educational task consists of overcoming difficulties which are best—and perhaps only—overcome by the determination and ingenuity born of dedication. It therefore devolves upon those who teach in a course of initial training to maximize their students' emotional and attitudinal involvement, both in the fates of the children they will teach and in the effectiveness of the profession they will enter. The foundation staff saw this to be best achieved in a situation which invited participation in a joint activity, the nature of which was to be explored and examined within the context of continuous experience of schools and children.

A SYSTEMS STUDY OF A COLLEGE OF EDUCATION

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reprinted from

journal of **Systems Engineering**

Summer 1970 Vol. 1 No. 2

Reprinted from the journal of Systems Engineering, Vol. 1, No. 2, Summer 1970

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K. E. Shaw

Introduction

Little is known about the way in which individual educational enterprises work as organisations. Professor Peston has drawn attention to the lack, both at the macro-level and the micro-level, of explanatory theories of the decision-making process and its outcome [1]. No detailed case studies of such aspects of large educational enterprises have been published. Yet such enterprises, particularly the large ones in the further and higher education sectors, are the major source of highly skilled manpower to all other organisations. Their effectiveness as producers of this fundamental resource, the human capital of the economy, is clearly an important matter. With the appearance of Academic Boards in Polytechnics and Colleges of Education, and the likelihood of increased representation of junior staff levels on university senates, decision-making will become more widely diffused throughout the organisation; for decisions concerning academic aspects cannot be separated for long from decisions relating to equipment, staffing, policy, and even capital investment. Apart from routine administration, policy decision is the major management function in Colleges; there is no equivalent to such functions as sales, supervision, production technology, personnel, costing and the like. Responsibility for policy and programming, the two major areas of decision, is widely spread. Not only the Principal and the Bursar, but Heads of Departments, elected staff representatives on the Governing Body, functional specialists in such areas as closed circuit television, and students, are involved in the task of steering complex and very valuable enterprises through increasingly unstable environments. Developed navigational aids such as have resulted from the greater volume of research into the behaviour of business organisations, are needed in the educational field.

In this article an attempt is made to indicate some of the problems involved in conceptualising what goes on in a large College of Education. Attention will be directed towards

(1) the operating process,

(2) the information system,

(3) the decision process, and

(4) possible indices of overall performance.

At present such studies as this can only be of a ground-clearing nature; but they can at least show how the theories, concepts and techniques available to businesses square with the results of direct observation of non-industrial undertakings. If common features, clusters of variables, and behavioural regularities can be identified in different sorts of enterprises with reasonable precision, better model building and greater conceptual integration in organisation theory is likely to result. However, many variables do not lend themselves to objective mathematical treatment, and model builders have a variety of motives. It is probably not to be expected that conceptual integration in this area will come any faster than in those, say, of personality study or learning theories.

The study of the organisational features and behaviours of non-industrial enterprises is recognised as presenting peculiar difficulties. Everett Hughes pointed out ten years ago that in enterprises where things are done to and for people there is

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often no consensus about what the object to be produced shall be, as there is, generally speaking, in a factory; and that the much-studied problem of restriction of output in industry is simplicity itself beside the restrictions, resistances and distortions of purpose and effort in prisons, mental hospitals, schools and the like [2]. On the other hand ideas have been imported into the higher levels of organisation theory from fields as different as psychotherapy and production engineering. In its present state organisation theory resembles a rather loose sheaf of insights and conceptualisations, only partially articulated and at more than one level of generality. It remains a basic problem of research to show how and to what extent it is possible to use this imperfect theory to arrive at principles of selection amongst the almost infinite mass of data that could be collected about any large enterprise. In what follows, a systems approach has been used because it emphasises positivistically the process rather than the purposes, that is, by what goes on, not by attempts to justify or legitimise outcomes by reference to abstract cultural values. If, as Cyert and March assert, the traditional theory of the firm is really a theory of markets [3], the traditional theory of educational enterprises is a theory of culture showing how resources are allocated according to a general value system. But the mechanics of the process, the detailed workings of individual institutions, are very imperfectly known.

The Background of the Study

In industry, studies of overall performance are likely to be precipitated by innovations in the production technology. In education the production process is less subject to technological change; roles and attitudes are relatively stable. The study on which this paper is based was essentially the result of a demand for clarification which arose from the convergence of three developments. The first of these was growth from four hundred to twelve hundred teacher-training places in the space of eight years, 1961-1968, including the change from a two-year to a three-year course (1962) and the introduction of degree courses (1966). The second was a change in the provision of resources from a "go" situation in which extra capital and current resources were forthcoming every year, to a "stop" situation of relative financial stringency. The third was a change in the decision-making machinery when an Academic Board was set up in accordance with national legislation following the Weaver Report. This latter led to a situation not unlike that described by Rice in his study of the Ahmedabad experiment [4], in which a Board had to learn to take decisions which had previously been taken by a very experienced and successful chief executive. It was seen, perhaps partly as a way of escape, that these were matters which could be helped by a better understanding of the overall performance of the College. No such studies of educational enterprises appeared to be available, so that it was not easy to know where to begin.

Following a distinction made by Katz and Kahn who note that "The organisation as a system has an output, a product or an outcome, but this is not necessarily identical with the individual purposes of group members" [5], *the first step* was to consider the operating characteristics of the College, but without becoming enmeshed in discussions of alternative aims and purposes which are a regular feature of educational writing about individual institutions. The importance of this lies in the fact that tasks and outcomes can not be directly deduced from aims; indeed there is usually a conspicuous disparity between what is actually going on and the expressed aims of an educational enterprise. Furthermore, tasks and outcomes are not visibly related to a technology and machinery as they are in a factory. "The reciprocal role relation between teacher and student is . . . the central technology of education" [6], that is to say, it is governed by socio-psychological laws which are far less exact than those of engineering. Finally, as Gross has shown [7], in educational enterprises many of the large number of aims he has identified are related to maintenance and integration, and thus only indirectly to outputs.

The second stage was to construct, in the light of this survey, a system model of

inputs, transformations and outputs. Such a model would inevitably be very crude, but its use would be to indicate

(1) what kinds of specific data needed to be collected,

(2) what were the main structural features and sub-system boundaries, and

(3) what were the points where decisions were made.

The third stage was to examine the decision process itself and assess the possibilities of implementing change. It will be recognised that technological, market, social and other changes which make themselves quickly felt in industrial concerns are much slower to affect educational enterprises, which can hold out against adaptation and innovation for a long time (though not, perhaps, as long as prisons). Precise information, also, is a very scare resource. The nature and extent of change is thus much less constrained; indeed it is nearer to a voluntary decision on the part of the staff, taken in conditions of considerable freedom (except economic) and leisure. The question of implementation and evaluation of change is thus a delicate one. It often depends on consent in a not-very-authoritarian set-up, where producers rather than consumers have the power, and where cost-effectiveness can be headed off by appeals to cultural values. What is involved, in short, in getting changes made, is not so much the technological aspects as the whole political system of the organisation.

Operating and Organisational Characteristics

Like a factory the College is, in Lupton's phrase, "a system of structured activities, complexly related, and in a complex environment" [8]. It is unlikely to be possible in principle, and certainly is not in practice, to take account of all the major variables in this complexity. This is particularly true of the human variables, on which the basic technology depends, since no adequate methods are available for quantifying human behaviour in complex social situations. The practical method seemed to be

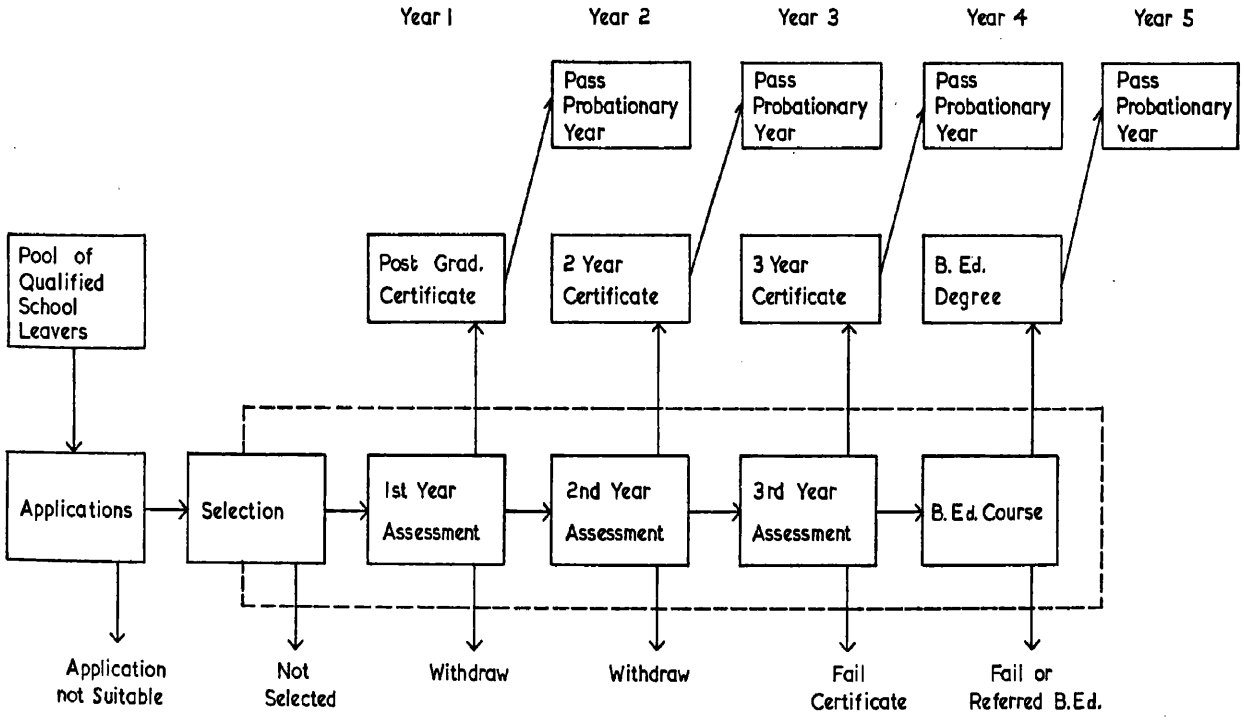

FIGURE 1: Points of Assessment in the Training Process.

to stand well back from this comlexity in order to pick out the main characteristics of the College as an operating system for converting inputs into outputs and to embody these in a first-approximation model. However elementary, this would at least make explicit what was believed to be going on. With its help the literature of organisation theory could be more profitably searched, and the realities of the College situation examined to show what was quantifiable and what was not.

The principal output of a college is changes effected in people, though there is a small output of research publications, books, advisory services, etc. Tyler, who has carried out one of the very few comprehensive studies of an institution of higher professional education, the United States Air Force staff college, has written that a positive statement of educational objectives would consist of "explicit formulations of the ways in which students are expected to be changed by the educative process. That is, the ways they will change their thinking, their feeling and their actions" [9]. The transformation process by which these socially-valued changes are brought about, which corresponds to the manufacturing process in industry, is essentially communication and socialisation. It consists of social interaction between the professional and the client, and within the client group.

Inputs	*Process*	*Outputs*
Plant and Finance		Changes due to learning: Knowledge
	Verbal and	Skills
⟶	non-verbal ⟶	Abilities
Staff	communication	Aptitudes
		Changes due to socialisation: Attitudes
		Values
Students		Expectations
		Beliefs

Most of the changes in people which constitute the output are not directly observable in the way that changes from sick to well are observable in hospital patients; except, perhaps, in a narrow range of vocational and technical skills, in which case training is a better word to describe the process than education. The above diagram thus has no feedback lines from output to process. The points at which assessment of the effect of the process in bringing about the desired changes is attempted, are shown in Figure 1. Ideally there should be a further diagram showing feedback lines through a common information store (the record cards) back to the staff; but this would be misleading. A minor reason is that much information is lost. Only fragmentary information is available about students who fail their probationary year (the only unambiguous market test). Detailed information from internal monitoring frequently remains inside the individual Departments, or reaches the cards only in the much reduced form of letter grades, pass/fail symbols or brief subjective assessments. A more important reason why they would be misleading is that drawing them presupposes that the monitoring succeeds in testing what it sets out to test. It is doubtful whether the methods—examinations, work-grading, assessment of performance on teaching practice—are reliable even when applied to simple recall of information by students. The students' information field is probably inadequately sampled. There is no empirical validation of teaching practice assessments, which in addition to even less adequate sampling may be seriously affected by the teaching situation ("easy" or "tough" school), by tutors' stereotypes, and by the effects of role ambiguity in the students, who are torn between meeting college requirements and school requirements.

Turning now to organisation, educational enterprises show characteristics not unlike those observed by Woodward in process industries such as chemicals and oil distillation. Production facilities are rather inflexible except in terms of the direct growth of the plant; though it should be noted that at the cost of congestion and

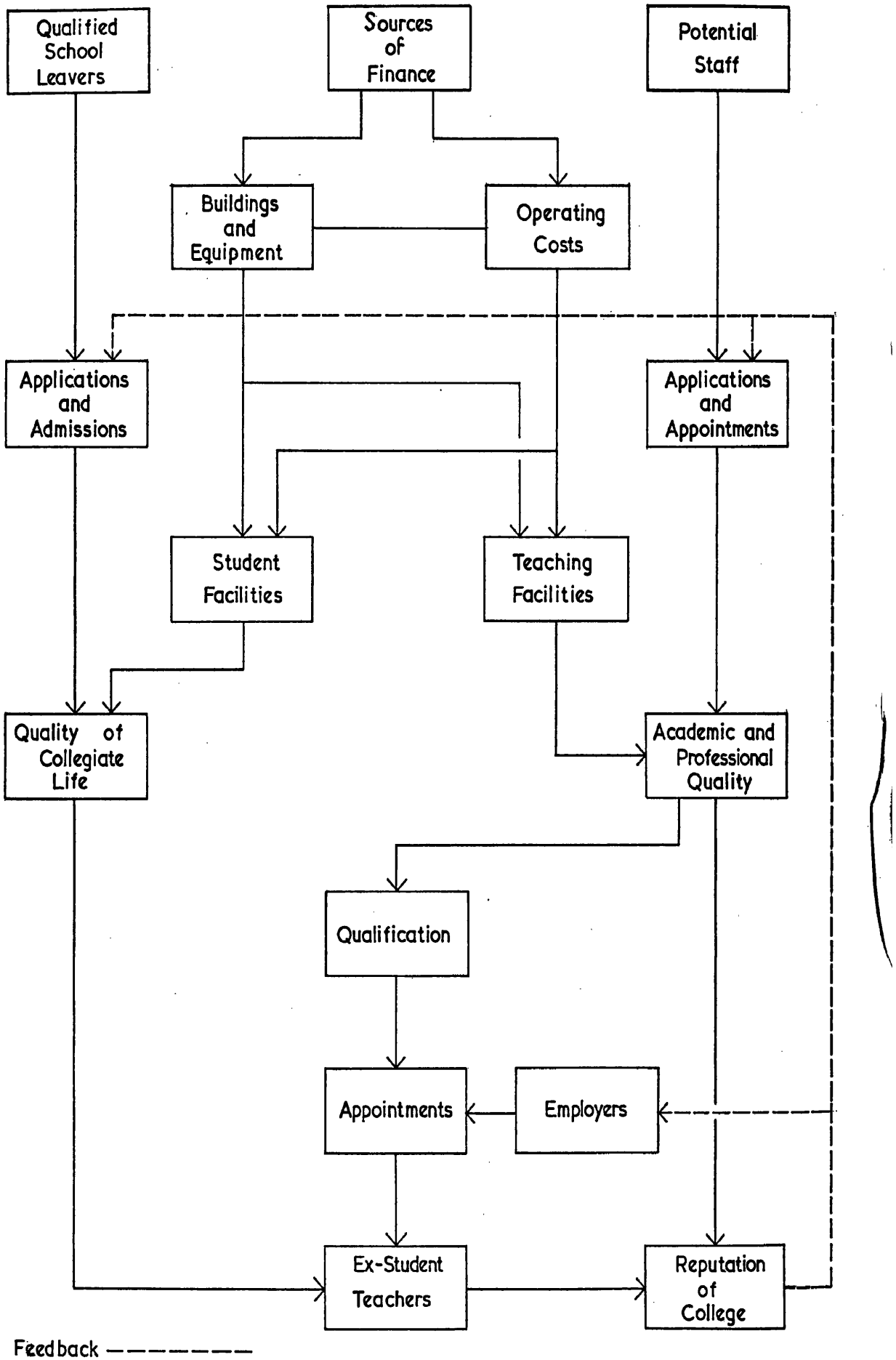

FIGURE 2: A First Approximation Model of the Organisation.

reduction in the amount of instruction carefully tailored to the needs of individual or small groups of students, the throughput has on one recent occasion been increased by 20% for very little extra investment [10]. Part of this may have been by taking up organisational "slack" but it is impossible to assess how much, since the market readily accepts substitutes (i.e. more-cheaply-produced teachers). Growth consists in adding more of the same facilities, gymnasia, library space, lecture rooms, etc. There is a very high proportion of professional staff. The fundamental rigidity is that of departmental structure: a teacher underemployed in one department has only limited value to another and cannot be made redundant.

Current running expenses directly, and capital costs indirectly are related to student numbers by the system of *per capita* grants. Minor capital grants can be made for special purposes such as setting up closed circuit television, but major investments are for buildings and are regulated by reference to the national picture of student enrolments as seen and estimated by the Department of Education and Science. Since students recruit themselves, and the D.E.S. plans are made known in advance, there is little uncertainty about resources and inputs. Similarly there is no problem at the output end since qualified leavers find their own employment in what has been a sellers' market. Hence imponderables are few. The major consequences of taking a particular decision—to change the mix of students, or to introduce new areas of work such as the B.Ed. degree—are fairly clear in advance and only the administrative consequences need to be considered. These are of course not negligible, involving as they do the career prospects of individuals and the political system of the College. Except as regards reputation, which is a significant long-term goal because it affects the College's chances of attracting the better students, as well as internal morale and consideration by the D.E.S., the College is a "no risk" situation.

Any unanticipated consequences of decisions can usually be accommodated and are much less significant than unanticipated changes in the environment. A 10% shortfall of teaching practice places would cause a serious crisis. The main adaptive mechanism for dealing with changes in the environment, which cannot be ignored, is to modify the product mix, by changing the ratio of specialist to general students, men to women, etc. Since this can only be done at each annual intake, it is a slow moving mechanism. Any acceleration in the rate of environmental change would be serious; if the Colleges did not respond quickly enough, other institutions such as Polytechnics or the Open University might well take over some of their functions.

In appearance the control system is highly formalised since there is a clear hierarchy within each department and the rights of each department to use the facilities are specified in the timetable and the allocation of equipment. However, as in professional situations generally, the prescribed element in the lecturer's work is small, and the discretionary element large; this is the main bulwark against bureaucratisation. Status and rank are an aspect of the career and reward system; but in the work situation, which includes a good deal of group planning and team teaching, specialised expertise determines the lecturer's role more than his position in the staff hierarchy. Responsibility is thus widely delegated and tactical decisions are taken close to the task; because of common professional identification there is a tendency for decisions made by *A* to be much as *B* would make them. Supervision is minimal, since control is effected by the task itself, group pressures and professional codes. The social system is equalitarian on a first name basis, so that communication vertically and laterally is easy. The Principal concerns himself with relations with the environment, human relations, organisational details and long term policy. The foregoing overview, though highly condensed, gives some idea of the working organisation represented in Figure 2, the first-approximation model [11].

The Assessment of Overall Performance

Having decided to conceptualise the model in this way, it remains to consider possible measures of overall performance of the enterprise. The justification for such an

attempt is the same as for industrial enterprises, namely to produce some precision as to administrative objectives, to act as a yardstick and incentive in relation to performance, to provide an assessment of the response to economic constraints by organisational adaptation, and finally, the straightforward satisfaction of possessing the knowledge. It should not of course be overlooked that there is a fairly substantial cost in collecting large amounts of precise information about a complex situation. The College has only a small administrative section. Also the biases and filters which tend to distort information as it is transmitted through industrial organisations seem just as likely to be operating in the College.

The familiar gross measures of performance available to industry—profit, return on investment, share of the market, value of the equity, and so on—which, though they have been much criticised by business theorists, are at any rate publicly understood and psychologically satisfying, are clearly not applicable to Colleges. Colleges produce a collective good—teachers—for which it is neither culturally acceptable, nor indeed practicable, to charge by use; the conventional amount paid for the utility is not a reflection of its true value to the community. Cost-benefit analyses are not practicable, for whilst it is possible to give an estimate of the benefit to one class of persons involved, the students, in cash terms over their career, it is quite impossible to do so for the other classes involved, the pupils, their parents, future employers, etc. From this point of view providing teachers is more like providing an amenity like a park, than providing a highway; we intuitively feel the advantage of a park or education, but we cannot appraise the costs of not providing them, or of achieving the same effects by alternative means.

The problem, in fact, comes down to that of *seeking some measures of the use of resources over time*, together with checks on the strategic course of the enterprise. Economies of scale with growth are hardly to be expected. For one thing, many costs, particularly the major one of staff salaries (60% of the total) are tied to student numbers by the fixed staff-ratio. More important, in response to demands that non-university establishments shall not appear too obviously as poor relations in the higher education sector, new facilities are better, in the sense of more expensive, more luxurious, equipped in a superior way, rather than merely reproducing the former level of facilities. This affects running as well as capital costs, and more than offsets economies of scale.

CAPITAL COSTS

Sophisticated techniques for appraising the intensiveness of the use of capital have not been devised for Colleges. Those based on discounted capital flow techniques or related to simple return on investment are ruled out by the absence of anything analogous to a cash return for money invested. It is not even possible to use a straightforward notion of depreciation in order to spread the capital investment over a defined number of annual intakes of students. Repairs and maintenance are treated as running costs, and the fabric is insured for its replacement cost. The site and buildings in fact appreciate in value rather than the reverse. The only foreseeable danger in capital investments is that specialised buildings may turn out to be white elephants; some universities have invested heavily in inflexible plant in the form of Halls of Residence which are increasingly difficult to fill because of changed student attitudes. It seems unlikely that this will affect the College since, because of the nature of the site and the size of the institution, a large measure of substitution is possible; for example, plant no longer suitable for its original purpose (study bedrooms) has been re-used for another (tutor's studies) at negligible cost.

Capital invested in Colleges produces more teaching places or better facilities, or more usually, both. The only practicable indication of capital performance is the relation of capital inputs to student numbers over time. It must be supplemented by an appraisal of the balance between facilities and teaching spaces. It is an essential assumption, though a realistic one since plans must have D.E.S. approval, that new facilities are provided at the same level at all colleges. Money invested in such things as kitchens, common rooms, etc., improves the facilities without providing extra

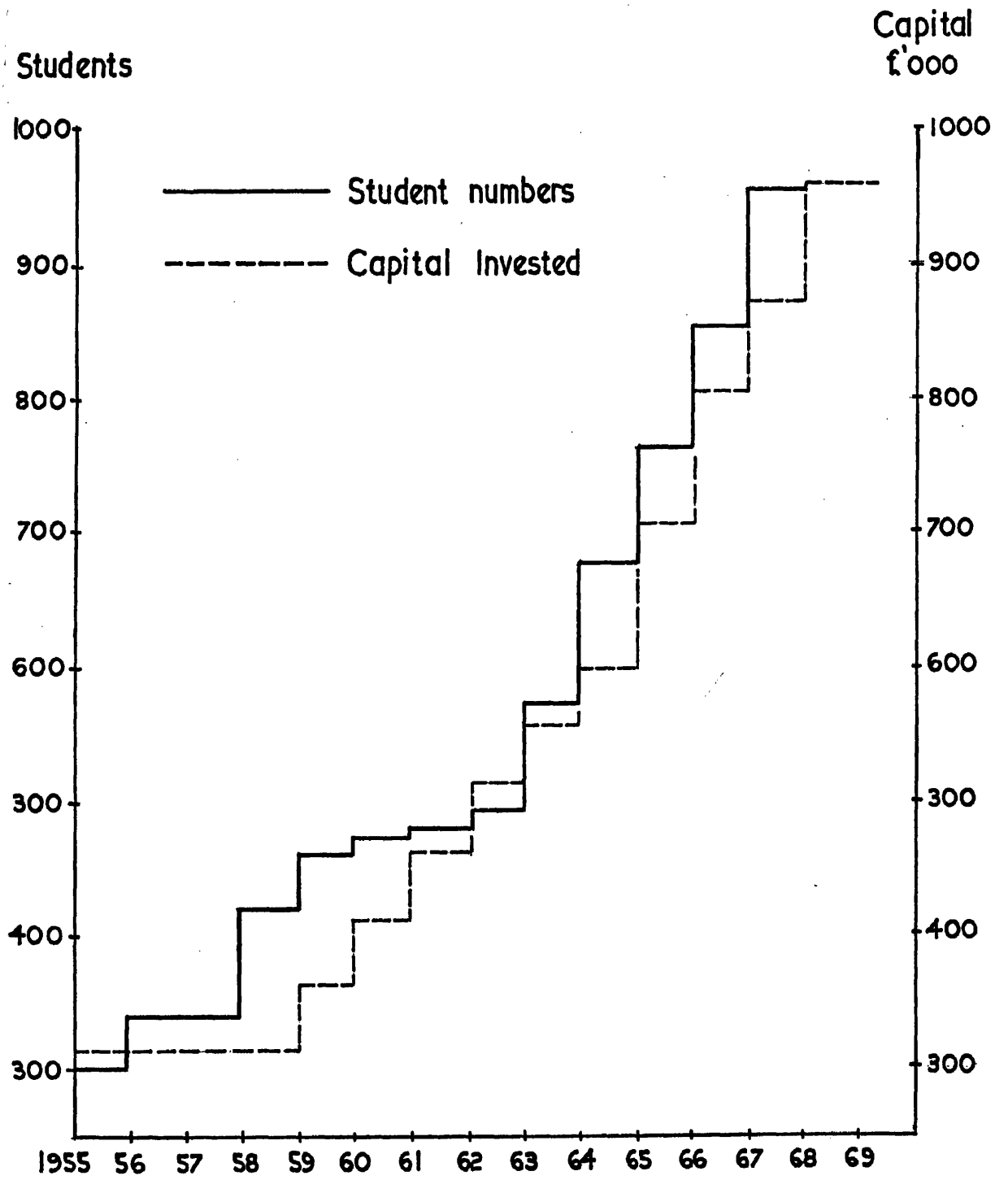

FIGURE 3: Relationship between Capital Invested and Student Numbers.

teaching spaces directly; but it may, with forethought, be used to create circumstances in which, for example, more day students can be admitted (as by having cafeteria rather than formal dining facilities), or some other more appropriate "mix". This means that the existing teaching spaces may be more intensively used.

Figure 3 shows the relationship between capital invested and student numbers. The graph indicates that, without taking account of the changing value of money, capital investment has risen at a rate very similar to the rise in student numbers, when the cost of major works is shared out over the years taken to complete each project. However, this conceals the fact that there has been a substantial change from a

majority of resident to a majority of non-resident students over the period, so that capital costs of providing residential accommodation have been avoided. This change is shown in Table 1.

Table 1: Numbers and percentages of resident and non-resident students, 1959-60 to 1968-69

Year	Resident Students		Non-resident Students	
	No.	%	No.	%
1959–60	326	81	75	19
1960–61	414	83	84	17
1961–62	435	85	80	15
1962–63	480	69	217	31
1963–64	494	70	215	30
1964–65	472	61	303	39
1965–66	461	56	369	44
1966–67	467	45	573	55
1967–68	458	43	607	57
1968–69	445	37	754	63

From the point of view of the market, the employing schools, residentially and non-residentially trained students are regarded as perfectly equivalent. By this organisational adaptation the College has performed the equivalent of providing places at a cost of about £1,000 each in capital investment, over the whole period; and since only about seventy per cent of this came from public funds the cost to the taxpayer was even less. This is a striking achievement. The cost of providing a place is bound to vary from College to College according to the site, age, structure of existing plant, etc.; what is appropriate to the appraisal of capital investment is not the place-cost in itself, but the trend in place costs over time.

OPERATING COSTS

Maintenance grants are part of the cost to the taxpayer. Though they do not directly affect the operating costs of the College, in the light of the shift to non-residents noted in the previous section, the following background facts may be mentioned. Students fall into one of three categories:

(1) low-cost residents who receive tuition, residence and a modal grant figure of £163;

(2) low-cost non-residents without dependants who receive tuition and a modal grant figure of £382; and

(3) high-cost non-residents, heads of families with dependants, who receive tuition and grants ranging from £500 to £950.

A ten per cent random sample of the first 1,000 grant forms available in October 1969 showed that percentages in each category were 27%, 48% and 25% respectively. For a course of the same length, the cost to the public of categories (1) and (2) is about the same, but the cost of students in category (3) is substantially higher, though many in this category take the shortened two-year course. By taking non-residents the College taps a large source of students who would not otherwise undertake training, but at the cost of congesting the facilities.

The simplest way to look at operating cost performance is the ratio:

$$\frac{\text{annual-operating-cost input}}{\text{annual-number-completing course output}}$$

The operating costs are taken from the annual balance sheet. To allow for the different course length, student output is normalised to the basic nine term course by the formula

$$N=(12a+9b+6c+3d+e)/9$$

where *a, b, c, d, e,* are the numbers completing 4, 3, 2, 1 year and 1 term courses respectively. The figures calculated in this way are shown in column 4 of Table 2. These figures understate the position by ignoring the withdrawal rate which amounts to 7% on a three-year course. More important however, is the fact that because of the growth of the college and changes in course mix, the total number of students can differ from three times the course output. This fact is emphasised by the marked change in the ratio which occurred when the three-year course was introduced in 1962.

For these reasons the annual cost per student at the college is a better measure of cost performance, and these figures are given in column 6 of Table 2. When an index of the cost per student, column 7, is compared with the consumer price index in column 8, it will be seen that when inflation is taken into account, the cost per student has remained sensibly constant over the period 1958 to 1969. The changes in real cost per student which occurred in periods of rapid growth and when the three-year course was introduced, have now been smoothed out.

Table 2: Growth of Operating Costs, Student Output, Student Numbers and Consumer Prices, 1958 to 1969. (Sources: Report of Governing Body; Annual Abstract of Statistics.)

Year	Operating Cost £,000	Normalised Student Output	Annual Cost per Student Output £	Student Numbers	Annual cost per student		Consumer Price Index 1958 = 100
					£	Index 1958 = 100	
1958	133	124	1070	414	321	100	100
1959	152	131	1160	452	336	104·6	100·6
1960	180	144	1250	494	364	113·4	101·6
1961	178	150	1185	498	357	111·2	105·0
1962	204	94†	2170†	523	390	121·4	109·5
1963	242	185	1310	583	413	129·2	111·1
1964	260	215	1210	688	378	117·7	115·3
1965	288	221	1300	784	367	114·3	120·8
1966	349	256	1360	845	413	128·6	125·6
1967	391	286	1365	961	406	126·4	128·7
1968	461	329	1400	1069	431	134·2	134·7
1969	545	392	1390	1199	454	141·4	142·3

† Change to three-year course; very small student output.

PLANT-USE A further aspect is the intensiveness of the use of the plant, or facilities. The working day has not been lengthened (many students travel long distances), nor has the number of working days in the year been increased since these are regulated by national agreements. These arrangements are influenced by the reluctance of the domestic staff to change their terms of employment, of students to forego vacation earnings, of landladies to change the basis on which they accept student boarders, and of the staff to change the pattern of their working year. Whilst some Colleges have introduced staggered intakes, four term years, Box and Cox schemes, and so on, the College studied has increased its output essentially by a more intensive use of plant.

Norms set up in the mid-fifties suggested that the appropriate area of teaching space required for a College of 200 was 16,470 sq. ft., or about 80 sq. ft. per student. This was probably a generous, target-type, estimate, prepared before the period of rapid expansion. The College studied suffered very extensive war-damage, which reduced its teaching space to about 12,500 sq. ft. Between 1946 and 1958 this was raised to about 22,000 sq. ft., giving a ratio of some 55 sq. ft. per student. When the new building programme was completed in 1962, prior to the intense pressure from the Ministry to "crowd-up", the ratio rose to about 80 sq. ft. per student. During the period of explosive growth of student numbers, building continued, but the figures for sq. ft. per student fell as follows: 1964, 60; 1967, 45; 1968, 45; 1969, 40. It should be added that the peak has now passed, and the ratio is likely to improve in the future.

HUMAN ASSETS

The evaluation of human resources has received very little attention despite the fact that teaching is a labour-intensive industry, particularly so in the higher education sector. The three aspects which appear at first sight to be involved in human asset accounting are recruitment, deployment and development. Deployment is the most familiar of these aspects. The matching of teacher-resources to pupil or student groupings need no longer rest on the traditional lore of the timetable expert since it has been recently analysed and put on a theoretical and mathematical footing [12]. Recruitment involves the notion of an appropriate "mix" of staff skills, subject to a principle of requisite flexibility to meet the needs set up by changes in the environment. Individual departments recruit staff without close regard to the overall balance of College staff. A study of staff in the College by seniority cohorts since 1945 suggests that though the age balance is about right, there is a serious imbalance between the many well-qualified specialist academic staff and the fewer experienced and successful *practitioners* who alone have direct and sustained experience of techniques appropriate to primary and non-selective secondary schools in which the bulk of the student leavers may be expected to teach. This situation is a legacy of the Robbins era when the Colleges were struggling for recognition as institutions of higher education, and the three-year course was followed rapidly by the introduction of degree work. Under the "Binary System" the Colleges offer non-university higher education, and staff of the appropriate calibre had to be recruited. But in the post-Robbins era there has been an evolution of policy within the Department of Education and Science. In part this is influenced by the changes from a tripartite to a comprehensive system, and from a primary/secondary to a first/middle/upper school system; in part also it has been influenced by the increased number of graduates coming forward for training, the reduced number of mature short-course students, and other changes in the "mix" of applicants. A major adaptive shift towards more work orientated to the lower age ranges is inevitable.

Since turnover is low (less than 2% p.a. over the period 1955-1968) this problem cannot be solved by a changed basis of recruiting; lecturers hold a life appointment. Staff development appears to be the only method available. Deepening and redirecting staff skills is not a matter of research alone as it has traditionally been in universities. Education is an applied science, akin to engineering or medicine, in which direct practical experience must complement study. In addition to research and study for higher qualifications there is a need for exposure to new kinds of teaching situations in schools, a wider range of information from the underlying disciplines of psychology, sociology, philosophy, etc. and experience of a richer variety of specialised resources such as closed circuit television, programmed learning equipment, and the like.

A planned and economic programme of staff development, and in the long term of balanced staff recruitment, depends on reasonably precise knowledge of the present state of staff qualifications, experience and proficiency. Furthermore this knowledge should be available at the centre, rather than scattered through the departments. The beginnings of a systematic and apparently acceptable basis for human asset

accountancy have been made at the Unilever Research Laboratories [13]. Scientists were asked to review the scientific areas and techniques with which they were familiar and to list them with a proficiency rating. By means of a simple classification system the individual profiles were collated into an Experience Inventory directly relevant to the assessment of the gross expertise of the enterprise, and to manpower deployment and development. Though the method is quite recent the originators believe that the scheme is robust enough to tolerate the subjectivity of the data involved. It seems very likely that the preparation of such an inventory, with the appropriate safeguards, would be a valuable tool for appraising the human assets of the College and highly relevant to policy in this sphere.

Conclusion

In conclusion, the only way in which the overall performance of a College can be evaluated is by the number of students of the appropriate type which it produces in relation to its resources. But the phrase "of the appropriate type" uncovers deep questions about the nature of the adaptive response of an enterprise to a market environment about which it can have little direct information without high costs, and which appears to be in a state of accelerating change as regards both the pool of qualified school leavers from whom the intake is drawn, and the school system which absorbs the qualified leavers. Under the "Binary System" the countervailing power of the consumer appears to be rapidly eroding the producer-domination characteristic of higher education, and outside the university sector at any rate, a more rapid pace of adaptive change is likely to be forced upon educational enterprises. With increased speed come increased navigational hazards. Even crude aids to steering seem preferable to driving "by the seat of one's pants" even if the latter is broadened to include all the seats on the Academic Board.

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